A Cultural Resources Inventory of the Hawthorne Water Systems Project Babbitt, Mineral County, Nevada

Report

KAUTZ ENVIRONMENTAL CONSULTANTS, INC.

Frontpiece illustration of a
pecked and grooved saurian effigy head
discovered in an Archaic site
in the South Truckee Meadows, Nevada.
Illustration by J.W. Oothoudt

A CULTURAL RESOURCES INVENTORY OF THE HAWTHORNE WATER SYSTEMS PROJECT, BABBITT, MINERAL COUNTY, NEVADA

Prepared for:
Danny Sommers
Farr West Engineering
5442 Longley Lane, Suite B
Reno, Nevada 89511

Prepared by:
Dwight D. Simons, Ph.C. and Robert R. Kautz, Ph.D.
Kautz Environmental Consultants, Inc.
5200 Neil Road, Suite 200
Reno, Nevada 89502
(775) 829-4411; kec.kautz@sbcglobal.net

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MANAGEMENT SUMMARY

In early June, 2007, Mr. Danny Sommers, Farr West Engineering, Reno, Nevada, contacted Dr. Robert Kautz, Kautz Environmental Consultants, Inc., Reno, Nevada, to request a cultural resources survey of 1,116.5 acres located immediately north of the City of Hawthorne, west-central Mineral County, Nevada. The proposed project area is currently owned and managed by Mineral County. The County has received a Nevada Small Cities Community Development Block Grant administered by the U.S. Department of Housing and Urban Development (HUD), and the County's Economic Development Administration, to develop water and sewer lines in anticipation of construction of an industrial park project on the subject lands. Mr. Ron Radil of the Western Nevada Development Department subsequently met with Ms. Rebecca Palmer of the Nevada State Historic Preservation Office, who recommended a cultural resources survey.

Because the proposed project area is funded and permitted through HUD, this project is defined as a "federal undertaking," which refers to, "any project, activity, or program that can result in changes in the character or use of historic properties, if any such historic properties are located in the area of potential effect" (36 CFR § 800.2[o]). Since the proposed project is a federal undertaking, it entails responsibility for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. § 470), and its implementing regulations (36 CFR Part 800.4[b]). This act, and its implementing regulations, are intended to ensure consideration of historic resources by means of their identification and historic resource evaluation, as well as an evaluation of the project's effect upon those resources. The report that follows has been designed to satisfy these specific federal requirements.

On June 19-22, 2007, a Class III pedestrian survey was done of the entire 1,116.5 acre project area. A total of 31 isolated artifacts, 10 isolated historic features, and 21 archaeological sites were observed and recorded. The 21 archaeological sites included 15 historic sites, five prehistoric sites, and one multi-component site. All of the six prehistoric sites/component were lithic scatters. Among the 16 historic sites/component are 11 refuse scatters, an historic road segment, the Hawthorne Cemetery, the Hawthorne Sewage Treatment Facility, the Hawthorne Airport, and the former town site of Babbitt.

It is recommended that the 31 isolated artifacts, and the 10 isolated historic features are not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP). Therefore, it is recommended all these isolated finds require no further management consideration prior to implementation of the proposed development project.

It is recommended that the six prehistoric archaeological sites/component 26Mn1656, 26Mn1658, 26Mn1660, 26Mn1662, 26Mn1664, and 26Mn1666, and the 16 historic archaeological sites/component 26Mn1651, 26Mn1652, 26Mn1653, 26Mn1654, 26Mn1655, 26Mn1657, 26Mn1658, 26Mn1659, 26Mn1661, 26Mn1663, 26Mn1665, 26Mn1667, 26Mn1668, 26Mn1669, 26Mn1670, and 26Mn1671, are not-significant, and not eligible for nomination to the NRHP. Therefore, it is recommended all the prehistoric sites and the single prehistoric component, and all the historic sites and the single historic component, require no further management consideration prior to implementation of the proposed development project.

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1.0 INTRODUCTION

In early June, 2007, Mr. Danny Sommers, Farr West Engineering, Reno, Nevada, contacted Dr. Robert Kautz, Kautz Environmental Consultants, Inc., Reno, Nevada, to request a cultural resources survey of 1,116.5 acres located immediately north of the City of Hawthorne, west-central Mineral County, Nevada. The proposed project area is currently owned and managed by Mineral County. The County has received a Nevada Small Cities Community Development Block Grant administered by the U.S. Department of Housing and Urban Development (HUD), and the County's Economic Development Administration, to develop water and sewer lines in anticipation of construction of an industrial park project on the subject lands. Mr. Ron Radil of the Western Nevada Development Department subsequently met with Ms. Rebecca Palmer of the Nevada State Historic Preservation Office, who recommended a cultural resources survey.

1.1 PURPOSE OF THE SURVEY

Because the proposed project area is funded and permitted through HUD, this project is defined as a "federal undertaking," which refers to, "any project, activity, or program that can result in changes in the character or use of historic properties, if any such historic properties are located in the area of potential effect" (36 CFR § 800.2[o]). Since the proposed project is a federal undertaking, it entails responsibility for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. § 470), and its implementing regulations (36 CFR Part 800.4[b]). This act, and its implementing regulations, are intended to ensure consideration of historic resources by means of their identification and historic resource evaluation, as well as an evaluation of the project's effect upon those resources. The report that follows has been designed to satisfy these specific federal requirements.

1.2 PROJECT AREA

The current project area is located in west-central Mineral County, Nevada, on the former grounds of the former Hawthorne Naval Ammunition Depot/Hawthorne Army Ammunition Plant (the current Hawthorne Army Depot), immediately north of the City of Hawthorne, Nevada (Figure 1.1). It occupies an irregularly-shaped, 1,116.5 acre contiguous block (Figure 1.2). The project area block is in portions of the SW¼ of Section 15, the NE¼, SE¼, and SW¼ of Section 16, the NW¼, NE¼, and SE¼ of Section 21, and the NW¼, NE¼, SE¼, and SW¼ of Section 22, Township 8 North, Range 30 East, as depicted on the *Hawthorne West*, *Nevada*, and *Hawthorne East*, *Nevada*, 7.5' U. S. G. S. Topographic Quadrangles, Provisional Editions 1987.

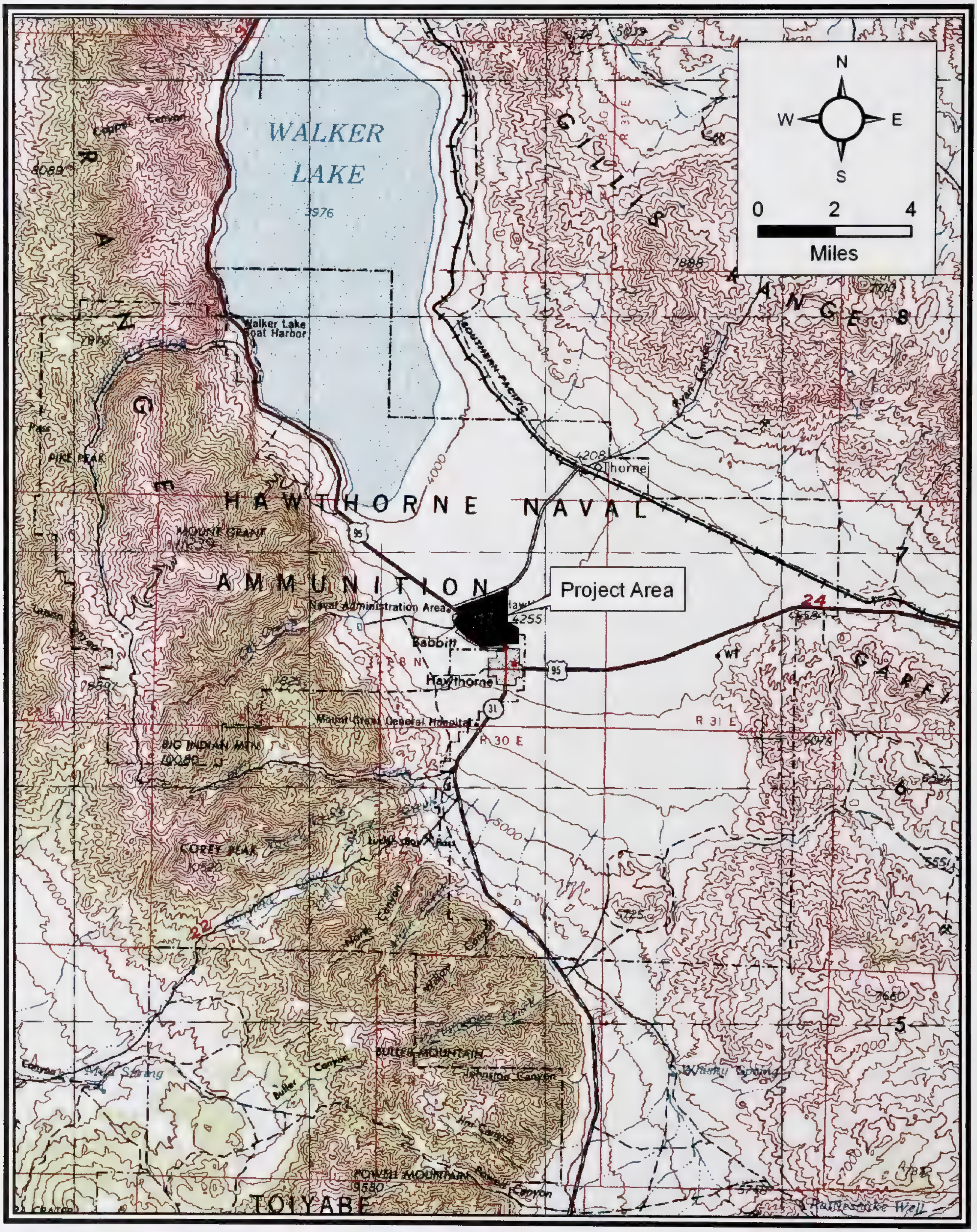


Figure 1.1 Project Vicinity Map. Base Map: *Walker Lake, Nevada; California*, 1:250,000 Scale, Topographic Quadrangle, U.S.G.S., 1957 (Revised 1969). T.8N., R.30E.

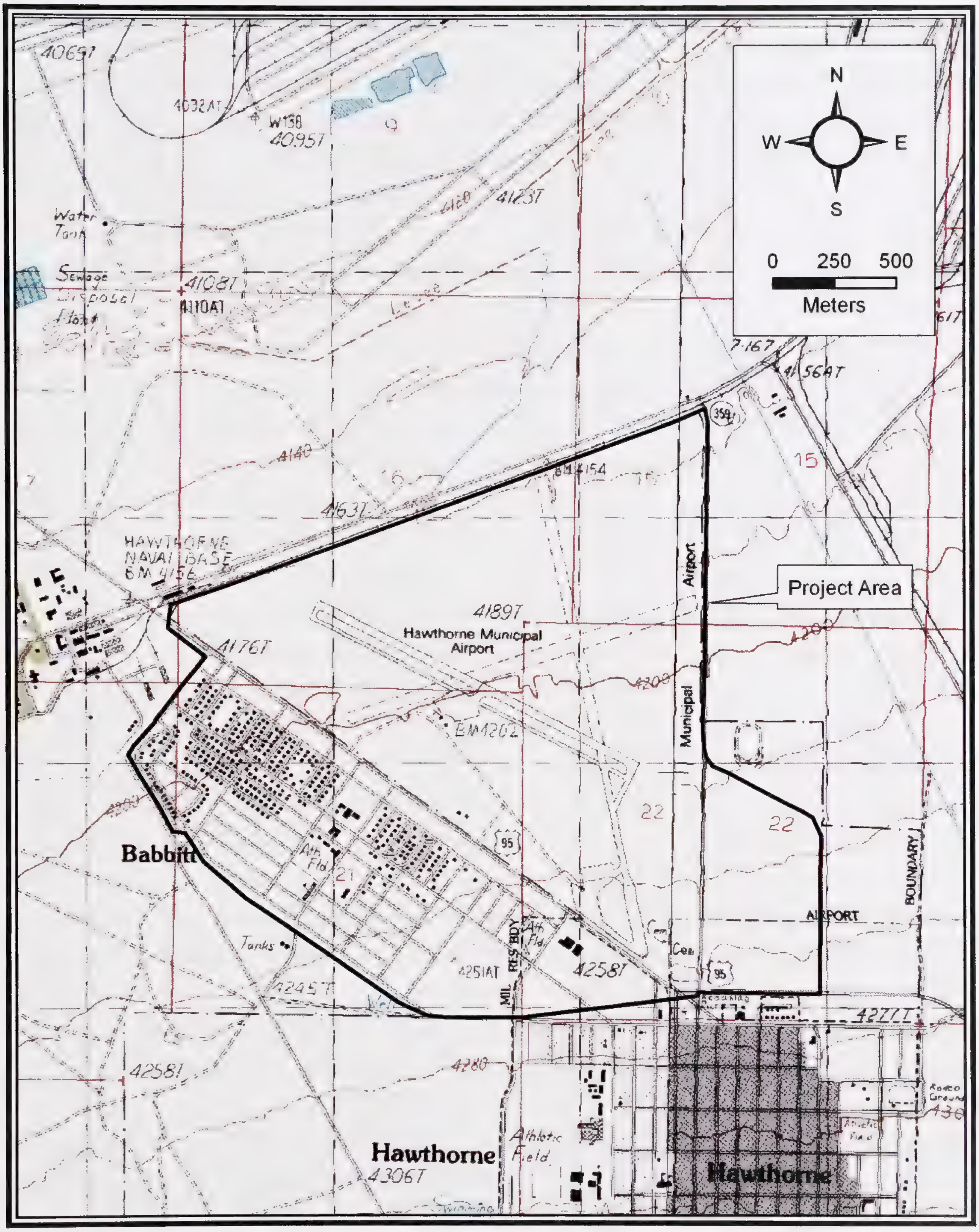


Figure 1.2 Project Area Map. Base Map: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

1.3 REPORT OUTLINE

Following the Secretary of the Interior's guidelines for cultural resources surveys (National Park Service 1983), this report provides a statement of purpose, a description of the area surveyed, a review of prior archaeological investigations, an historic context, a research design, the results of the cultural resources inventory survey, and recommendations for management of cultural resources encountered during the survey. Section 1 presents a brief summary of major project details, states the purpose of the cultural resources inventory, describes the project area, and details the natural setting of the project area. A prehistoric, ethnohistoric, and historic overview for the current project area and environs is contained in Section 2. This section also outlines relevant prehistoric and historic research themes and associated questions, which provide a background context for the present inventory. A review of prior archaeological investigations within a mile radius of the project area is found in Section 3, along with field methods, and inventory expectations. Results of the pedestrian survey of the project area are presented and discussed in Section 4. Resource evaluations and management recommendations are stated in Section 5. Section 6 provides a bibliography of the literature cited in the report. Appendix A contains the project photo logs. A history of the Hawthorne Army Ammunition Plant and the Babbitt Housing Area (Molyneaux 1992) is reproduced in Appendix B. Historic Resources Inventory Forms and an associated historic context are in Appendix C. The site records for the archaeological sites recorded during the survey is found in Appendix D.

1.4 NATURAL SETTING

1.4.1 Geology and Soils

Ross (1961:51-52, Plate 2) notes that the current project area is characterized by Quaternary Alluvium. This mainly is valley fill, and includes older gravel, slope wash, and Pleistocene lake bed deposits. A variety of alluvial and lacustrine deposits occur, with various kinds of basin fill debris derived from surrounding mountains. Fanglomerate is abundant near range fronts and the low points of basins often have playa deposits.

Stewart et al. (1981) provide a more detailed summary for Quaternary Young Alluvial Fan Deposits. These are poorly-sorted deposits of boulders, cobbles, gravel, sand, and silt. Clast size generally decreases towards distal margins where materials usually are better sorted. These deposits include some fine-grained basin-fill materials which occur where distal fan limits are gradational and poorly-defined. Fan surfaces are undissected to very slightly dissected with few, if any, well-defined drainage channels, and distributional drainage radiating from fan apexes. Generally, fan surfaces are unweathered, and soil-profile development is very weak

Blake (1991:Sheet 8) describes project area soils, which are partly mapped. Most of the project area appears to contain Immo-Immo Occasionally Flooded Association soils (Blake 1991:332-334). These mainly are Immo Very Gravelly Loamy Sand. This deep, well-drained soil forms on inset fans and summits of alluvial fan remnants in alluvium derived from granitic rocks. The surface very gravelly loamy sand is underlain by stratified, extremely gravelly coarse sand to very gravelly loamy sand, and very gravelly loamy coarse sand.

In the eastern part of the project area are Soda Spring-Izo Association soils (Blake 1991:277-279). Soda Spring Loamy Sand is a very deep, well-drained soil, forming on slightly higher fan surfaces in mixed alluvium. Beneath the surface loamy sand is stratified gravelly coarse sand to sandy loam. Izo Very Gravelly Sand is deep, well-drained, and is formed in channels from mixed alluvium. Very gravelly sand is underlain by stratified gravelly loamy sand to extremely gravelly coarse sand.

1.4.2 Flora

The flora characterizing the current project area and environs is described by a number of workers (cf., Billings 1945, 1949; Blake 1991:1031, 1062; Cronquist et al. 1972:87-90, 111, Figure 63, 114-122; Shantz 1925:17-20; Trimble 1989:Chapter 7; West 1988:217-222; Young et al. 1988:785-791). The current project area lies within the shadscale vegetation zone. Dominant shrubs include shadscale (*Atriplex confertifolia*) and greasewood (*Sarcobatus* sp.). Among the other important shrubs are four-wing saltbush (*A. canescens*), bud sage (*Artemesia spinescens*), ephedra (*Ephedra nevadensis*), winter fat (*Eurotia lanata*), burro brush (*Hymenpclea salsola*), horse brush (*Tetradymia* sp.), and wolf berry (*Lycium cooperi*). Various grasses are present regionally, among which Indian rice grass (*Achnatherium [Oryzopsis] hymenoides*), and Great Basin wild rye (*Elymus cinereus*) were important resources for Native Americans (Fowler 1986, 1989, 1992). Other grasses include bottlebrush squirreltail (*Elymus elymoides*), galleta (*Pleuraphis* sp.), needlegrass (*Achnatherium* sp.), drop seed (*Sporobolus* sp.), and needle-and-thread (*Hesperostipa comata*).

1.4.3 Fauna

Walker Lake contained a somewhat limited native fish fauna, composed of species occurring within the Lahontan system (Hubbs and Miller 1948; La Rivers 1962:141-144; Sigler and Sigler 1987:5-6; Smith et al. 2002). Species of importance to prehistoric peoples included tui chub (*Gila bicolor*), Tahoe sucker (*Catostomas tahoensis*), Lahontan cutthroat trout (*Oncorhynchus clarki*), Lahontan redside (*Richardsonius egregius*), and speckled dace (*Rhinichthys osculus*) (cf., Butler 1996, 2001; Fowler 1986, 1989, 1992; Raymond and Sobel 1990; Smith 1985).

Alcorn (1988), Linsdale (1936), and Ryser (1985) report upon birds inhabiting the project area and environs. These include a variety of waterfowl in wetland habitats. Among these are loons, grebes, pelicans, herons, egrets, swans, geese, ducks, coots, plovers, silts, avocets, shorebirds, phalaropes, and gulls. Upland game birds, sage grouse, and mourning doves, also are present, along with various raptors (i.e., vultures, hawks, eagles, falcons, owls), and a host of passerine birds. Birds important to Native Peoples included grebes, pelicans, herons, egrets, geese, ducks, and coots (cf., Fowler 1986, 1989, 1992; Livingston 1986, 1988, 1989, 1991, 2001).

Hall (1946) and Zeveloff (1988) list mammals present within the project area and environs. Lagomorphs include black-tailed hares (*Lepus californicus*), white-tailed hares (*Lepus townsendii*), and cottontails (*Sylvilagus nuttallii*). Among the rodents are marmots (*Marmota flaviventris*), ground squirrels (*Spermophilus* and *Ammospermophilus* sp.), pocket mice (*Perognathus* sp.), kangaroo mice (*Microdipodops* sp.), kangaroo rats (*Dipodomys* sp.), pocket gophers (*Thomomys* sp.), grasshopper mice (*Onychomys* sp.), harvest mice (*Reithrodontomys* sp.), deer mice (*Peromyscus* sp.), wood rats (*Neotoma* sp.), meadow mice (*Microtus* sp.), sagebrush voles (*Lagurua curtatus*), muskrats (*Ondatra zibethica*), and porcupines (*Erethizon dorsatum*). Carnivores consist of coyotes (*Canis latrans*), kit foxes (*Vulpes macrotis*), gray foxes (*Urocyon cinereoargenteus*), long-tailed weasels (*Mustela frentat*a), river otters (*Lutra canadensis*), badgers (*Taxidea taxus*), striped skunks (*Mephitis mephitis*), spotted skunks (*Spilogale gracalis*), mountain lions (*Felis concolor*), and bobcats (*F. rufus*). Currently, mule deer (*Odocoileus hemionus*) are the big game mammal. Pronghorn (*Antilocapra americana*), and bighorn sheep (*Ovis canadensis*), occupied the region historically (cf., Barrett 1965; Buechner 1960; Cowan 1940; Hall 1946; McQuivey 1978; Pippin 1979). Native Peoples hunted various lagomorphs, rodents, carnivores, and large game (cf., Dansie 1990; Fowler 1986, 1989, 1992; Grayson 1985; Schmitt and Sharp 1990; Sharp 2001), with an apparent emphasis upon smaller prey.

2.0 PREHISTORIC AND HISTORIC OVERVIEW AND RESEARCH THEMES

A number of research themes for prehistoric and historic cultural resources are applicable to the current project area. These play a critical role in determining the significance of cultural resources, and in addressing management recommendations for cultural resources recommended significant and eligible for nomination to the National Register of Historic Places (NRHP). They also serve to direct mitigation efforts for prehistoric and historic cultural resources recommended significant. These research themes are outlined in the following discussion.

2.1 PREHISTORIC CONTEXT

Given the almost complete lack of prehistoric cultural resources within the project area, a detailed overview of the prehistory of the region is not presented in this report. The prehistoric archaeological sequence for the west-central Great Basin is discussed by Ataman (1999), Bard et al. (1981); Clay et al. (1996), Elsasser and Gortner (1991), Elston (1971, 1979, 1982, 1986a); Elston et al. (1977, 1994, 1995); Hester (1973); papers in McGuire (2002a), Moore and Burke (1992), Pendleton et al. (1982), Simons and Malinky (2006), and Zeier and Elston (1986), among others. In this region, temporal/spatial units have been constructed almost entirely on the basis of stylistic and functional changes occurring through time to projectile points, with the aid of subsequent point type seriation and cross-dating.

These relationships have been tested many times (cf., Beck 1998; Bettinger et al. 1991; Elston 1971, 1979; Elston et al. 1977, 1994, 1995; Heizer and Hester 1978a, 1978b; Hildebrandt and King 2002; O'Connell and Inoway 1994; Rosenthal 2002; Thomas 1981, 1983). This spatial/temporal work forms the foundation of prehistoric culture history for west-central Nevada as summarized in Table 2.1. Syntheses of inferred past lifeways throughout the region have been provided by Beck and Jones (1997), Bettinger (1993, 1998, 1999), Dansie and Jerrems (2004, 2005), Elston et al. (1977, 1994, 1995), papers in Janetski and Madsen 1990; Jones and Beck 1999; Kelly (1997, 2001), papers in McGuire (2002a); Rhode 1990; Simons and Kautz (2004), Simons and Malinky (2006), Zeanah (2004), and Zeanah and Simms (1999), among others.

Table 2.1 Summary of Prehistoric Chronology in West-Central Nevada (after Elston 1982, 1986a; Elston et al. 1995:13-18, Table 2)

Adaptation	Phase	Age (Yrs. B.P.)	Diagnostics Interpretations
Late Archaic	Late Kings Beach	150-700	Desert Series points. The Numic Expansion, and reduced residential mobility occur.
	Early Kings Beach	700-1,300	Rosegate Series points. The possible inception of Washoe-speakers, introduction of the bow-and-arrow, further intensification/specialization, maximum population levels occur.
Middle Archaic	Late Martis	1,300-3,000	Martis/Elko Series points. People live at ecological "sweet spots," Martis emphasis on basalt.
	Early Martis	3,000-5,000	Gatecliff, Martis Contracting Stem, and Steamboat Series points. Long-term residence, intensive seed processing, and food storage occur.
Early Archaic	Spooner	5,000-8,000	Stemmed and large side-notched points rare locally, Split-stem forms occur late. This period is characterized by low population densities, and concomitant lack of archaeological visibility.
Paleoarchaic	Tahoe Reach	8,000-10,000	Great Basin Stemmed Series points. People are highly mobile.
	Washoe Lake	> 10,000	Fluted points. Small, highly mobile groups are present.

2.2 PREHISTORIC RESEARCH THEMES

Prehistoric research themes developed for west-central Nevada include *Paleoenvironments*, *Chronology*, *Site Formation Processes*, *Settlement-Subsistence*, *Lithic Technology*, and *Trade and Exchange* (cf., Clay et al. 1996; Elston et al. 1994, 1995; McGuire 2002aq; Moore and Burke 1992; Simons and Malinky 2006; Zeier and Elston 1986). These are deemed particularly relevant to the current project. *Paleoenvironment* examines changes in physical and biological variables occurring during the Late Quaternary. *Chronology* is based upon the overall chronological scheme for west-central Nevada, and is focused upon particular time periods, such as the Paleoarchaic Period, the Middle Holocene, and the Numic Expansion. *Subsistence-Settlement* considers the nature of "broad spectrum" Archaic adaptations, and is particularly concerned with resource and/or land-use intensification, the place of hunting within the broader subsistence system, and prehistoric land use patterns characterizing the Carson Desert. *Lithic Technology* investigates quarrying behavior, tool production trajectories, and mobility patterns occurring locally throughout time and space. *Trade and Exchange* is focused upon use of local as opposed to non-local tool stone sources, among which are obsidian, fine-grained volcanic rock such as basalt, and CCS.

2.2.1 Paleoenvironments

During the late Pleistocene, and throughout the Holocene, environmental changes of varying magnitudes have occurred in the Great Basin. Grayson (1993), Hershler et al. (2002: various papers), Mehringer (1986), Tausch et al. (2004), and Wigand and Rhode (2002), summarize Late Quaternary paleoenvironmental data for this region. Later, historic period, environmental change in the Great Basin is outlined by Harper (1986). Rhode (1999) summarizes the historic relationship between Great Basin archaeology and paleoecology, while Benson et al. (2002), Elston (1979), Elston et al. (1994:9, Table 2); Kelly (2001:33-36), Mensing et al (2004), Rhode et al. (2000); Tausch et al. (2004), Wigand (2005, 2006), and Wigand and Rhode (2002:321-332) summarize paleoenvironmental data pertinent to western Nevada, emphasizing geomorphic, pluvial, pedologic and biological data.

Antevs (1925, 1936, 1938, 1948, 1952a, 1952b, 1953a, 1953b, 1955) pioneering work, summarized by Grayson (1993:208-210, 215-216), helped focus Great Basin research upon environmental and associated prehistoric archaeological issues. This emphasis also characterizes several other works, including Grayson (1993); Mehringer (1986); and papers in Beck (1999); Hershler et al. (editors-2002); Janetski and Madsen (editors-1990); and Madsen and O'Connell (editors-1982), which serve to identify critical environmental variables affecting Late Quaternary human populations inhabiting the Great Basin. Environmental factors are seen as potentially affecting human adaptations in many ways during prehistoric times (Bettinger 1993, 1998, 1999; Rhode 1999), including technology, subsistence (in particular, use of wetland, alpine, and pinyon resources), settlement (especially utilization of residential bases and storage), and population (indicating *in situ* growth, and movements).

Lake Lahontan

The history of Late Pleistocene Lake Lahontan, which inundated the current project area and environs, has been the subject of numerous investigations (Adams 2003; Adams and Wesnousky 1998; Benson 1978, 1991, 1993; Benson and Thompson 1987a, 1987b; Benson et al. 1990, 1992; Briggs et al. 2005; Davis 1978, 1982, 1983, 1985; summary in Grayson 1993:92-97; Morrison 1961, 1964, 1991:288-300; Morrison and Davis 1984; Negrini 2002:23-27, 32-35, 39-40; Purkey and Garside 1995:150-159; Rhode et al. 2000:46-48; Smith and Street-Perrott 1983:196-197; Thompson et al. 1986). Its areal extent is mapped by Davis (1982:61-62, Figures 4 and 5; 64, Figure 6), Hubbs and Miller (1948), Mifflin and Wheat (1979:Plate 1); Reheis (1999), Snyder et al. (1964), and Williams and Bedinger (1984). Adams and Wesnousky (1998), and Rhode et al. (2000:46-48), note the last high stand of Lake Lahontan was at about 1,338.5 m, immediately prior to approximately 13,070 +/- 60 years B.P. The lake subsequently receded about 10-20 m per 100 years. By around 12,070 B.P., its level was at approximately 1,230 m. With a high stand at about 1,339 m (4,393 feet) at approximately 13,000 B.P., Lake Lahontan would have innundated the current project area to depths of approximately 73 to 41 m (233-135 feet). Hubbs and Miller (1948), Mifflin and Wheat (1979), Snyder et al. (1964), and Williams and Bedinger (1984) place the southernmost end of the Lake Lahontan complex just south of Hawthorne.

Walker Lake

Walker Lake, originally just north of the project area, is a remnant of former Lake Lahontan. Currently, the lake is about 21 km (13 miles) long, just over 8 km (five miles) wide and approximately 27 m (90 feet) deep (Taylor n.d. Part I:12). When first historically measured in 1882 by I. C. Russell, the lake's surface was at 1,244 m (4,080 feet) above mean sea level, and the lake had a maximum depth of 68 m (224 feet). By March 1996, it had declined 41 m (134 feet) to 1,203 m (3,946 feet) above mean sea level, with only about 50 per cent of its original surface area and 28 per cent of its original volume. This has dramatically increased the lake's salinity (Taylor n.d. Part I:13-14).

The Late Quaternary history of Walker Lake is summarized by Grayson (1993:223-226), and Kelly (2001:33-36) (see also Benson and Thompson 1987b; Benson et al. 1991; Bradbury 1987; Bradbury et al. 1989; Newton and Grossman 1988). In spite of abundant data indicating the presence of Lake Lahontan, little evidence exists indicating that Walker Lake existed between c. 12,500 and 4,700 B.P. From approximately 4,700 to 2,700 B.P., the level of Walker Lake appears to have been high, reaching approximately 90 m deep. Between about 2,700 to 2,100 B.P., the lake's level declined, with Walker Lake becoming a shallow brine lake, with a depth less than 3 m. After around 2,100 B.P., the level of Walker Lake rose, peaking at about 1,245 m (4,085 feet) c. 1,250 B.P. The lake then swiftly declined to 1,206 m (3,957 feet) between 1,250 and 1,000 B.P. From 1,000-120 B.P., Walker Lake rose to its historic level of 1,244 m (4,080 feet).

Some (i.e., Benson and Thompson 1987b; Benson et al. 1991) argue Holocene dessication of Walker Lake resulted from diversion of the Walker River through Adrian Valley into the Carson Sink. King (1993:93, Figure 9) provides several scenarios. Others (i.e., Bradbury 1987; Bradbury et al. 1989) conclude climatic change is responsible for the Holocene drying of Walker Lake. Adams (2003), Grayson (1993), and Kelly (2001) favor a combination of river diversion and climatic change.

Carson Desert Paleoecological History

The paleoecological history of the Carson Basin is described in general terms by Wigand and Rhode (2002:313-332) and further detailed by Kelly (2001:33-36) and Rhode et al. (2000). It serves as a proxy for conditions characterizing the Walker Lake region to the south. The Late Pleistocene up to about 12,500 B.P., was characterized by the spread of a Utah juniper woodland and downward expansion of whitebark pine more than 1,000 m below its current distribution. Sagebrush steppe occurred in areas now occupied by saltbush scrub. The Latest Pleistocene/Early Holocene (about 12,500 to 8,000 B.P.) witnessed the decline of juniper woodland. Extensive marshes occurred until about 9,600 B.P. Gradually increasing drought conditions during this period expanded the distribution of desert shrub vegetation, especially greasewood, at the expanse of sagebrush steppe. Steady contraction of wetland habitats, and increased eolian erosion also took place.

At the beginning of the Middle Holocene, 8,000-5,500 B.P., the retreat of juniper woodland, and the expansion of sagebrush steppe, climaxed. This period appears characterized by relatively arid conditions, low effective moisture, and precipitation mainly occurring in spring-summer. The all-pervasive drought conditions probably account for the paucity of paleobotanical data from this period at low elevations around the Lahontan Basin. The lack of juniper fossils suggests it may have retreated 200 plus m upslope. Around the margins of the Lahontan Basin, saltbush scrub communities dominated. Lakes and marshes were increasingly desiccated.

The start of the Early Late Holocene, between 5,500 and 2,000 B.P., was marked by amelioration of drought conditions as annual precipitation increased. This led to an expansion of local montane forest, regional semi-arid woodland, and sagebrush steppe. Juniper woodland expanded downward in elevation, and lakes and marshes were recharged. Precipitation shifted to a winter-dominant pattern. With cooler temperatures, effective moisture increased. The Middle Late Holocene, 2,000 to 1,000 B.P., was marked by a return to warmer, drier conditions, with late spring/early summer precipitation dominant. Juniper declined relative to grass and desert shrub vegetation. Lake levels fell, and wetlands contracted. Pinyon pine expanded into the western Great Basin, apparently first appearing in the Stillwater Range at about 1,500 B.P., ultimately reaching the Virginia Range at about 500 B.P.

The last thousand years began with a period of extended drought and apparently warmer temperatures, c. 1,150 to 600/500 B.P., termed the Medieval Climatic Anomaly (Meko et al. 2001; Stine 1994, 1996, 1998, 2000). This led to an expansion of saltbush scrub, lowered lake levels, and increased fire frequency, which heavily impacted the lower margins of desert woodlands. Beginning about 300-400 B.P., the cooler, wetter Matthes Advance/Little Ice Age (cf., Fagan 2000; Grove 1988; Meko et al. 2001; Scuderi 1987a, 1987b, 1990, 1993) initiated gradual expansion of pinyon-juniper woodland.

Paleoenvironmental Questions

Prehistoric sites located in the vicinity of the current project area are situated on highly sandy soils, probably representing former shorelines of Walker Lake. The potential thus exists to examine the dynamics of fluctuations of Walker Lake, and attendant Holocene beach formation, and how these have affected site location and structure. It also may be possible to examine site sediments for organic remains whose analysis can address paleoenvironmental issues (i.e., plant pollen remains and macrofossils).

- How does data regarding the amount of localized available moisture correlate with regional models of Late Quaternary climate change?
- What is the chronology and evidence regarding fluctuating available moisture during the Late Quaternary, and its possible association with increased and decreased human use of marsh habitats?
- Did shifts toward an emphasis on marsh or riparian resources (i.e., tule and sedge seeds, cattail, fish, waterfowl, carnivores), at the expense of upland resources (i.e., grass seeds, large game), occur during times of decreased available moisture?
- In a more general sense, does intensity of site occupation correlate *positively* with periods of apparent climatic/biotic amelioration, and *negatively* with periods of apparent climatic/biotic stress?
- What effects did the Late Pleistocene/Early Holocene transition have upon physical and biological habitats in the project area and environs? What role did the retreat of the Lake Lahontan system play?
- What effects did the Early Holocene warming trend have upon physical and biological habitats in the project area?
- What effects did the postulated warmer/drier climate of the Middle Holocene have upon physical and biological habitats in the project area?
- What effects did the postulated cooler/wetter climate of the Neoglacial period of the Late Holocene have upon physical and biological habitats in the project area?
- What effects did the postulated warmer/drier climate of the Medieval Climatic Anomaly of the Late Holocene have upon physical and biological habitats in the project area? What

effects did the postulated cooler/wetter climate of the Little Ice Age of the Late Holocene have upon physical and biological habitats in the project area?

- When did pinyon pine arrive in the mountains west of the project area and environs (i.e., the Wassuk Range), and how did its arrival affect prehistoric peoples living in the area?

2.2.2 Prehistoric Chronology

McGuire et al. (2004:23) observe,

> . . . refinement of chronological controls in the Great Basin remains a topic of substantial concern. The reason for this is that the temporal ordering of archaeological remains continues to be an essential prerequisite for the investigation of all 'higher order' research issues dealing with diachronic changes in human behavior.

In the Great Basin, chronological control primarily has been accomplished by comparing independent data sets derived from radiometric dating and artifact seriation, usually with artifacts obtained from stratified cultural deposits occurring in rockshelters and caves. Artifact cross-dating mainly has been focused upon projectile points. Other time-sensitive artifacts include ceramics, shell beads, and perishable remains, such as basketry. Recently, obsidian hydration chronologies and rate computations have been proposed for various obsidian sources, and in many instances have been used to construct relative dating schemes. In the western Great Basin, the chronological scheme has been outlined and refined through time by a number of workers (cf., Ataman 1999; Elston 1971,1979, 1982, 1986a; Elston et al. 1977, 1994, 1995; Heizer and Hester 1978a, 1978b; Hester 1973; Hildebrandt and King 2002; Kelly 2001; O'Connell and Inoway 1994; Thomas 1981, 1982, 1983a, 1985).

Prehistoric chronological overviews of note for west-central Nevada include those of Bard et al (1981:135-147); Elston (1982, 1986a), Kelly (2001:14, Table 1.1; 79-98); Pendleton et al. (1982:93-98); Roust and Clewlow (1968); and Thomas (1982, 1985:363-373). For the Carson/Humboldt Sinks, Elston (1982:191, Figure 2;1986a:135, Figure 1) assigns the period from c. 10,000 to 8,000/7,000 B.P. to the Pre-Archaic Period/Western Pluvial Lakes (i.e., Stemmed Point) Tradition. The Early Archaic Period is seen as lasting from about 7,000 to 4,000 B.P. It contains the poorly defined Hidden/Leonard Phase, possibly extending between approximately 8,000/7,000 and 5,000 B.P. The Middle Archaic Period is characterized by the Early Lovelock (c. 5,000-3,000 B.P.), and Middle Lovelock (c. 3,000-1,200 B.P.) Phases. The Late Archaic Period includes the Late Lovelock (c. 1,200-600 B.P.) and Paiute (c. 600-150 B.P.) Phases.

Following Thomas (1981; 1982, 1983a, 1985:363-373), Kelly (2001:14, Table 1.1) proposes several archaeological phases for the last 5,000 years in the Lahontan Valley/Carson Desert, which are applicable to the Walker Lake area. The earliest is the Devil's Gate Phase (c. 5,000-3,250 B.P.), characterized by the presence of Gatecliff Series projectile points. The subsequent Reveille Phase (c. 3,250-1,250 B.P.) has Elko Series points as a temporal marker. Rosegate (and possibly Carson) Series points are associated with the Underdown Phase (c. 1,250-650 B.P.). The most recent phase is the Yankee Blade (c. 650-100 B.P.), probably representing the intrusion of Numic speakers into the Walker Lake area.

Paleoarchaic Manifestations

Late Pleistocene-Early Holocene Great Basin archaeology is comprehensively reviewed by Beck and Jones (1997), and Jones and Beck (1999). The contention that Pre-Archaic/Paleoarchaic ("Clovis") hunters occupied the central Great Basin as early as 11,000-12,000 years ago principally is made on typological grounds (cf., Beck and Jones 1997; Jones and Beck 1999; papers in Willig et al. 1988). In order to confirm an early age for human populations in the Great Basin, conclusive evidence must be derived from unambiguous sources. This will occur at site(s) containing diagnostic artifacts in clearly defined, reliably stratified, radiometrically dated context(s), and/or in an indisputable direct association with extinct megafauna. Lacking such contexts, conjectures concerning the adaptive forms, and spatial/temporal dimensions of Pre-Archaic adaptations in the western and other portions of the Great Basin, often are regarded as suspect. Distinctive artifacts resembling those used by early so-called extinct-megafauna hunters, i.e., "Paleoindian" Stage Clovis hunters, found in numerous, unambiguous early contexts throughout the North American Southwest, East, and Southeast, often occur as isolates, or are mixed with scatters of other objects in the western Great Basin. This lithic technology is characterized by distinctive, large, stemmed and concave base projectile points with ground edges, large bifacial knives, crescents, and several types of scraper or scraper planes with rather steep edges.

Two Pre-Archaic traditions are recognized in the western Great Basin and adjacent portions of the intermontane Desert West (cf., Aikens and Jenkins 1994; Beck and Jones 1997; Bryan 1988; Grayson 1993:233-244; Jones and Beck 1999; Moratto 1984:75-103; Willig and Aikens 1988). One is the Fluted Point Tradition. Its principal diagnostic artifacts are large, lanceolate projectile points, possessing distinctive flake scars ("fluting"), which sometimes extend almost the entire length of the point. Termed "Clovis" and/or "Folsom" points elsewhere in North America, fluted points occur at numerous sites and localities in the Desert West (cf., Beck and Jones 1997; Grayson 1993:236-238; Jones and Beck 1999; Moratto 1984:79-88; Willig and Aikens 1988). Unfortunately, virtually all of these are isolated surface finds, or artifacts derived from depositional contexts of doubtful integrity. An apparent significant exception to this occurs at the Dietz site in south-central Oregon, where numerous Clovis projectile points occur along with Western Pluvial Lakes Tradition points, other lithic artifacts, and debitage. These were found in discrete activity areas, occupying separate parts of the site (Fagan 1988; Willig 1988).

The second probable Pre-Archaic cultural tradition present in the western Great Basin is the Stemmed Point Tradition, also referred to as the Western Pluvial Lakes Tradition (cf., Aikens and Jenkins 1994; Beck and Jones 1997; Grayson 1993:238-244; Hildebrandt and King 2002; Jones and Beck 1999; Moratto 1984:90-103; Willig and Aikens 1988). Diagnostic artifacts associated with this tradition include stemmed and non-notched lanceolate projectile points (e.g., Great Basin Stemmed); various lanceolate knives in assemblages with lithic technologies variously termed Parman, Mohave, Haskett, and so forth; and scrapers, crescents, and possible core-blades and burins. Originally defined by Bedwell (1973), the Western Pluvial Lakes Tradition (WPLT) initially was regarded as an archaeological manifestation possibly representing a bridge between the earliest North American lifeways, and the subsequent cultural tradition dominating the Great Basin until contact times -- the Archaic. The term WPLT was derived from its seemingly common occurrence along the edges of extinct pluvial lakes.

Bedwell (1973) suggested that the drying trend following the Pleistocene, between 10,000 to 6,000 B.P., human populations increasingly were restricted to lake or stream margins. However, subsequent work (cf., Aikens and Jenkins 1994; Beck and Jones 1997; Grayson 1993:238-244; Jones and Beck 1999; Willig and Aikens 1988) has demonstrated considerable variability characterizes the renamed “Stemmed Point Tradition,” formerly, WPLT, with respect to artifact types, and their distributions (Pendleton 1979). In addition to lakes and marshes, people making these tools utilized a wide range of habitats. Many sites contain both fluted and stemmed projectile points. Lithic analysis reveals these points were made in distinctly different ways, however, and likely were deposited as a consequence of two different sets of occupations occurring at different times.

Terminal Pleistocene/Early Holocene Paleoarchaic archaeological manifestations occur at several localities in the Lahontan Valley/Carson Desert. At Spirit Cave, on the east side of the Lahontan Valley/Carson Desert, a series of 10 radiocarbon dates associated with two human burials, and associated grave goods, range between 9,460 and 9,040 years B.P. (cf., Back and Jones 1997:176-179, Table 1; Dansie 1997; Tuohy and Dansie 1997:25, Table 1). Among the associated grave goods are tule mats used as burial shrouds, cremation bags, moccasins, and a rabbit-skin robe. Fish (tui chub, speckled dace, redsides, sucker) remains, and bulrush seeds were identified from associated human coprolites (Beck and Jones 1997:211, 215; Eiselt 1997; Napton 1997). A tule mat associated with a human burial at nearby Grimes Point Cave has provided a radiocarbon date of 9,470 +/- 60 years B.P. (cf., Beck and Jones 1997:176-179, Table 1; Tuohy and Dansie 1997:25, Table 1).

The Sadmat site is located just northeast from Hazen, Nevada (cf., Bard et al. 1981:139-142; Dansie 1981; Davis 1982b; Irwin-Williams et al. 1990:8-13; Pendleton et al. 1982:103; Rhode et al. 2000:48-49; Tuohy 1968:33-34, 1981, 1988:223-225; Warren and Ranere 1969:9-12, 16). At this site, 2,500+ lithic artifacts were recovered, including Haskett and Lake Mojave projectile points, leaf-shaped bifaces, gravers, and scrapers. The Sadmat assemblage appears assignable to the Western Stemmed Point Tradition/San Dieguito Complex, and therefore probably dates to the Early Holocene, approximately 10,500 to 7,500 B.P.

The Sadmat site, and other similar sites in the Carson Basin, may have been located at 1,220 m on a former shore of Lake Lahontan. This may correspond to a period of time occurring just after the Younger Dryas, approximately 10,900 to 10,000 B.P. Rock features present at the Sadmat site, and at a number of other sites in the vicinity, include pebble mounds, rock cairns, various circular/geometric stone alignments. Various ideas have been posited regarding their function, including gravel collected historically as ballast for the nearby railroad, remains of a 1930s Depression Era "make work" project, or prehistoric runoff enhancement features for water collection, or to promote plant growth.

Middle Holocene (Altithermal) Abandonment

Equation of the Middle Holocene Great Basin archaeological record with the concept of "Altithermal abandonment" has its origins in the work of Antevs (1948), who postulated the existence of a warm, dry, Middle Holocene "Altithermal" period, lasting from about 7,000-4,000 B.P. (see Grayson 1993:208-210, 215-216; and Rhode 1999:34-35, 37-41 for discussion of Antevs's "Altithermal" and its archaeological consequences). Antevs's Neothermal sequence, especially the Altithermal, was tested by Baumhoff and Heizer (1965), who examined whether regional archaeological chronologies in the Great Basin and adjacent portions of western North America displayed significant correlation with the Neothermal sequence. Although hindered by a sparse archaeological record in several regions, circular reasoning regarding chronologies, and results more equivocal than demonstrative, they concluded the Neothermal sequence explained large-scale prehistoric trends in the Great Basin.

Recently, the concept of Middle Holocene (i.e., Altithermal) abandonment again has attained currency in Great Basin archaeology. This is explicitly addressed by Grayson (1993:244-255), Kelly

(1997:8-9), and Madsen (2002:398-400), and in passing by Beck and Jones (1997:220-221). During the Middle Holocene, the Great Basin apparently was characterized by low population densities, manifested by low numbers of sites, and radiocarbon assays dating to this period. It is hypothesized that at this time, people increasingly clustered around dependable sources of water and attendant resources (i.e., around remnant wetlands), or migrated to places with more favorable conditions (i.e, California and the Plateau).

During the Middle Holocene, an apparent increasing focus upon ground stone tools and seed processing may have been a direct consequence of the reduction or loss of more favored resources. The Late Holocene wetlands focus present in many parts of the Great Basin (cf., Bettinger 1993:44-47; 1999:64; Heizer 1967; Heizer and Napton 1970; Hemphill and Larsen 1999; papers in Janetski and Madsen 1990; Kautz 1994; Kelly 1997:14-18, 2001; papers in Larsen and Kelly 1995; Madsen 2002; Napton 1969, 1970; Raven 1990; Raven and Elston 1988, 1989, 1992; Rhode et al. 2000; Thomas 1985:17-20, 374-391; Zeanah 2004; Zeneah and Simms 1999) may have had its origins during the Middle Holocene.

Mid-Holocene responses to increased extremes of temperature and aridity varied from region to region in the Great Basin. As for the likely scenario characterizing central Nevada and environs, Kelly (1997:9) suggests:

> The central Great Basin was even drier. There were no lakes or wetlands, and there is not much evidence of a substantial population. In fact, early Holocene sites are more common than middle Holocene sites (Grayson 1993). There are some middle Holocene dates from caves and rockshelters on the edges of the central Great Basin, for example, South Fork Shelter was first occupied just before the Mazama Ash fell at 6950 B.P. (Spencer et al. 1987), but in the central Great Basin itself, there is not much evidence of occupation after the initial paleoindian use to about 6000 or 5500 B.P. (Thomas 1982, 1983a; Elston 1986a, pp. 138-139). Even then, some areas do not see substantial occupation until after 3500 B.P. (Elston 1986a). This pattern is not a function of research efforts, but, instead, reflects a general population decline during the middle Holocene (Grayson 1993).

The Late Holocene Numic Expansion

It long has been debated whether sometime around 1,000 years ago, the Late Holocene was marked by the intrusion of Numic speaking peoples (cf., Bettinger 1993:53-56; Bettinger and Baumhoff 1982; Fowler 1972; Kelly 1997:24-35; Lamb 1958; papers in Madsen and Rhode 1994), represented in western Nevada by Northern Paiute speakers (Fowler and Liljeblad 1986). Conversely, it has been suggested these languages developed in place (Goss 1977). Currently, three models of Numic expansion exist. Grayson (1993, 1994) argues for Late Holocene reoccupation of more-or-less abandoned portions of the Great Basin, including the Fremont area after 600 B.P., by an in-migration of Numic speakers. Others (Aikens 1994; Aikens and Witherspoon 1986) posit initial migration of Numic speakers into the central Great Basin around 5,000 B.P., with subsequent expansion west and east, occurring around 1,000 B.P. A final model hypothesizes Numic speakers had an alternative adaptive strategy based upon resource intensification, and a more efficient settlement system, which led to competitive exclusion of earlier inhabitants of the Great Basin (Bettinger 1989, 1993, 1994; Bettinger and Baumhoff 1982; Young and Bettinger 1992). Prime movers hypothesized for the Numic Expansion include population growth, and/or climatic change.

The primary archaeological marker for Numic expansion in the Great Basin is the appearance of Great Basin Brownware pottery (i.e., Paiute-Shoshone Ware) (cf., Madsen 1986a:207-211, 213-214; also see Deal 1988:63, 79-83; James 1981:141-147; Janetski 1990, 1994:164-168; Pippin 1986; Tuohy 1986, 1990). Typical pottery shapes are conical, and flat-bottomed. Pots were built up and formed using the paddle-and-anvil method. Another possible Numic marker is Desert Series projectile points, especially Desert Side-notched and Cottonwood Triangular points (cf., Deal 1988; Delacorte 1995, 1997a; Holmer 1986; James 1981; Janetski 1994). However, these points also are associated with late Fremont cultures, and other non-Numic populations (Elston 1994). Rock house rings have been suggested as being associated with Numic speakers (cf., Arkush 1995; Bettinger 1989, 1994; Simms 1989; Thomas 1983b, 1988). Others argue rock rings have greater antiquity (Aikens 1993:33; Wilson 2000; Young et al. 1998:34). Changes in basketry technology by 1,000 B.P. are also thought to document the expansion of Numic speakers (Adovasio and Pedler 1994).

McGuire et al. (2004:26) note three ways in which one hunter-gatherer population can displace another. One hypothesis suggests replacements result from openly forceful conquest (Sutton 1986). Another proposes climatic, environmental, or other related factors changed or deteriorated, causing abandonment of an area by one group and subsequent expansion of a different group(s) into the vacated region (cf., Aikens 1976; Aikens and Witherspoon 1986; Elston 1982; Grayson 1994). Finally, as noted above, it has been suggested that one hunter-gatherer population may out-compete and displace another by more intensively exploiting a greater range of resources that are costly to collect and process (Bettinger and Baumhoff 1982). A locally sudden shift in adaptation supports the Bettinger-Baumhoff model, while an abrupt occupational hiatus favors the climatically-caused (Aikens 1976; Elston 1982; Grayson 1994), or conflict (Sutton 1986) models (McGuire et al 2004:26).

Archaeological sites possibly associated with the population replacement theme include late village sites, camp sites, and task sites and localities. These can provide evidence concerning past lifeways, especially subsistence-settlement activities, and associated socio-cultural strategies. The value of these sites lies in their research potential. Data obtained from such sites may address description of aboriginal procurement strategies (e.g., tests for the forager vs. collector model), subsistence practices, seasonal scheduling, task-specific tool kits, shifts in food preferences, organization of domestic space, reactions to environmental stress, population replacement, socio-cultural organization, and many other allied topics. Data categories include flaked stone tools, ground stone tools, house rings, fire hearths, pit ovens, cache pits, datable materials (e.g., projectile points, charcoal), and ecofacts (e.g., plant remains, animal bone). Questions most pertinent to this theme include whether Late Holocene changes in material culture which appear almost simultaneously throughout the Desert West result from ethnic replacement, as hypothesized by ethnolinguists and some archaeologists, or whether these changes reflect adaptive shifts occurring in areas larger than that defined by historic distribution of Numic languages as observed by Elston (1994).

Prehistoric Chronology Questions

At prehistoric sites in the vicinity of the current project area several sets of chronological data may occur. One is the presence of temporally diagnostic artifacts, such as temporally sensitive projectile points. Another is possible occurrence of buried cultural deposits, which may contain organic materials in secure contexts, allowing radiocarbon dating. Finally, the presence of obsidian artifacts allows obsidian hydration dating. Research questions for prehistoric chronology include:

- Are organic materials present in association with cultural components, thus allowing them to be radiometrically-dated?
- Is obsidian present in large enough quantities and sizes to conduct meaningful sourcing and hydration measurements?
- Are temporally diagnostic artifacts, including projectile points, present, allowing artifact cross-dating?
- Are single component assemblages from PreArchaic through Late Archaic times, containing a wide variety of associated artifacts representing a temporally defined "tool kit," present? If so, what types of artifact assemblages are associated with various phases?
- Is there any stratigraphically intact sequence of assemblages, with discrete associations delineating phase boundaries and artifactual content?
- Is there any assemblage representing a single component, containing several temporally sensitive artifact forms directly associated with one another?

- Are there data allowing absolute dating of Pre-Archaic and Early Archaic assemblages (i.e., pre-6,000/5,000 B.P.)?
- Do data exist in primary contexts allowing absolute dating of Middle Archaic Elko components?
- Do data exist in primary contexts allowing absolute dating of Late Archaic, Rosegate/Desert components?
- Is there any indication the Walker Lake region was occupied during the Late Pleistocene/Early Holocene (i.e., prior to c. 10,000-8,000 B.P.).? What form does this evidence take? What habitats appear to be utilized at this time?
- What is the evidence for human occupation during the mid-Holocene drought, which occurred roughly between 7,000 and 4,500 B.P. of the Walker Lake region (i.e., occurrence of projectile point forms typical of this time period, or obsidian sourcing and hydration data)? Is there data suggesting wetlands in the Walker Lake region were extant and may have served as a "refugium" for prehistoric peoples during the mid-Holocene drought, or at other times? Does Mid-Holocene occupation of the region appear focused upon the Walker River Corridor, the Walker Lake area wetlands, fault springs, or other water sources?
- With respect to the Shoshone/Numic Expansion, identified as represented by the Eagle Rock/Yankee Blade Phase, occurring after about700-650 B.P., is there evidence (i.e., Desert Series projectile points, Shoshone brown ware pottery, obsidian hydration data) indicating Shoshone/Numic (i.e., Yankee Blade/Eagle Rock Phase) occupation within the Walker Lake area? If so, what form(s) does this take?
- A chronological research question set is concerned with clarifying how the Middle and Late Archaic phases are associated. Variability attributed to temporal and/or functional diversity in assemblage composition, subsistence/settlement strategies, and/or lithic technologies provide pertinent data addressing this domain. Using these data, if present, is it possible to further clarify the relationships of local Middle to Late Archaic phases?

Research questions associated with the Numic Expansion include:

- What is the archaeological evidence indicating the occurrence of the Numic Expansion in the Walker Lake area?
- What is the temporal/spatial distribution of archaeological sites associated with the Numic Expansion?
- Does the Numic Expansion appear correlated with resource intensification?
- Does evidence exist indicating the Numic Expansion involved competitive exclusion, population replacement, habitat change, and/or population conflict?

2.2.3 Prehistoric Settlement-Subsistence

Subsistence and settlement systems are intermeshed, and their description central to an understanding of prehistoric synchronic adaptation or diachronic change. Variables, such as location and size of sites, diversity and variability occurring within and between artifact classes, duration and timing of occupational episodes, abundance of resources, and extractive technologies used through time, provide data answering questions related to this research domain. Analytic techniques include analyses of artifact form and function, analysis of tool edges, faunal analysis, micro and macrofloral analysis (flotation), and archaeological feature analysis. Critical to examination of subsistence and settlement systems is presence of well-preserved cultural features, such as hearths, domiciles, living surfaces, storage facilities, caches, and so forth. It is hoped meaningful patterns of artifact discard are preserved in association with these features, facilitating reconstruction of prehistoric behavior. Well dated contexts, which can be used to compare different temporal periods to one another, provide a comparative means for analyzing changing subsistence and settlement systems.

Archaic Broad-Spectrum Adaptations

The Archaic Period in west-central Nevada is described by Bard et al. (1981), Elston (1982, 1986a), papers in Janetski and Madsen (1990), Kelly (1985, 1990, 1995a, 1995b, 1999, 2001), Pendleton et al. (1982), Thomas (1985), Zeanah (2004); and Zeanah and Simms (1999), among others. Other relevant sources include Bettinger (1993, 1998, 1999a), Kelly (1997), and Simms (1986, 1987). In this region, as in other portions of the western and central Great Basin, Middle and Late Holocene Archaic lifeways are marked by increasing dependance upon the exploitation of an extremely diverse resource base, the so-called "broad-spectrum adaptation" as described in Kelly (1995a). Through time, as Archaic settlement patterns become more complex, sites vary more in size, are returned to more often, and display a wider range of associated functions (e.g., simple hunting blinds become associated with other hunting features such as walls, dead falls, and so forth). In part, these trends are the consequence of an increasingly complex need to synchronize human scheduling activities with seasonal availability of a large range of subsistence resources. Use of more and more types of plant and animal resources begins to pit resource against resource for the attention of human hunter-gatherers, with *timing* becoming the most accurate gauge of whether a particular strategy will be successful. With this the case, social organization and the informal web of human interaction become increasingly important as conduits of critical information regarding timing of resource availability in order to reduce the subsistence gamble.

Archaeological sites associated with broad spectrum adaptation include aboriginal camp sites, task sites, and localities, which provide evidence concerning past lifeways, especially subsistence-settlement activities, and associated socio-cultural strategies. The value of these sites lies in their research potential. Data obtained from such sites can contribute information concerning aboriginal procurement systems (e.g., forager vs. collector strategies), subsistence practices, seasonal scheduling, task-specific tool kits, shifts in food preferences, reactions to environmental stress, population replacement, socio-cultural organization, land-use/resource intensification, and many other related topics. Data categories include flaked stone tools, ground stone tools, fire hearths, pit ovens, cache pits, datable materials (e.g., projectile points, charcoal), and ecofacts (e.g., plant remains, animal bone). Dry caves present the opportunity to obtain information concerning organic materials such as basketry, cordage, coprolites, and dramatically increase the likelihood of the presence of intact stratigraphic sequences.

Prehistoric Land-Use Intensification

Resource intensification is postulated as a critical factor influencing increasing use during the Late Holocene of upland and lowland habitats by Great Basin peoples (cf., Bettinger 1993, 1999a, 1999b; Delacorte 2002; Elston and Zeanah 2002; Kelly 1997, 2001; McGuire 2002b; Thomas 1982, 1988; Waechter 2002a; Zeanah 2004; Zeanah and Simms 1999), with other factors, including environmental change and conflict, also of import. In many parts of west-central Nevada and adjacent areas, this was strongly conditioned by the focus upon the harvest of pinyon nuts. This trend apparently modified subsistence-settlement strategies of prehistoric foragers, with transport costs probably a critical variable determining central place location, and placement of outlying logistical camps (cf., Barlow and Metcalfe 1996; Kelly 1997; Madsen 1986b; Metcalfe and Barlow 1992; Rhode 1990a; Simms 1985a, 1985b, 1987; Thomas 1972a, 1972b, 1973, 1983a, 1983b, 1988; Zeanah 2004; Zeanah and Simms 1999:130-132).

In their discussion of prehistoric land-use intensification, McGuire et al (2004:26-27) stress the importance of gathering data from as many sites and environmental contexts as possible. Attention also must paid to recovering as many data sources as are available. In addition to food remains, other proxy data (i.e., those resulting from site catchment and assemblage composition studies) need to be considered. These latter data often can be obtained from surface survey results, and are a significant tool for reconstructing prehistoric land-use at the regional or systemic level. If temporal control is possible through radiocarbon dating, artifact cross-dating, or obsidian hydration chronologies, changes in land-use patterns through time can be described.

McGuire et al. (2004:27) list general trends defining Middle-Late Holocene land use in the northern Great Basin, which are applicable to the Walker Lake area. Through time, these include decreases in foraging range and logistical procurement strategies, and increases in settlement centralization and population growth. Cast in terms of optimal foraging theory, these trends towards resource intensification likely are manifested in the prehistoric record by:

- Increase in utilization of plant, animal, and other resources that were costly to collect and process.
- Decrease in tool stone diversity, and distance(s) over which lithic materials were transported.
- Changes in artifact assemblages from those composed of highly specialized, curated tools, to those characterized by more expedient tools, accompanied by an increase in the relative abundance of ground stone tools.
- Decrease in use of functionally specialized hunting and other logistical camps, along with production of increasingly uniform artifact assemblages.
- Presence of sites in previously ignored, increasingly variable, habitats.
- Increase in the number of site components assignable to successive periods.

Prehistoric Great Basin Hunting Adaptations

McGuire and Hildebrandt (2005), and McGuire et al. (2004:27-28, 130-135) note increased hunting of large game mammals occurred c. 4,000-1,000 years B.P. in both California and the northern Great Basin. This hypothesis contradicts expectations derived from optimal foraging theory that through time foraging efficiency declined, resulting in greater reliance upon smaller prey. They propose that a non-dietary, prestige-garnering, "costly signaling" strategy for men is associated with hunting large game mammals (see Hildebrandt and McGuire 2002 and McGuire and Hildebrandt 2005 for a detailed discussion of this argument). Specific fitness benefits for successful male hunters included enhanced mating opportunities, favored treatment for offspring, more effective communication within and between groups, and greater access to alliance networks and political authority. Consideration of underlying evolutionary processes emphasizes differing fitness pursuits associated with men and women. Gender-differentiated artifacts, food remains, work organization, and subsistence strategies are critical variables that need to be described. Prehistoric men and women in the Great Basin often practiced very different, sometimes conflicting, subsistence strategies. Women appear to have adopted a "provisioning" strategy, focused upon intensive exploitation of locally-available, often lower-ranked plants, fish, and small mammals.

The Hildebrandt-McGuire model is critiqued by Broughton and Bayham (2003). They argue Middle to Late Archaic hunting ascendance is not necessarily inconsistent with predictions derived from optimal foraging models. Rejecting Middle-Late Archaic "show-off" hunting, Broughton and Bayham hypothesize that following the drought-dominated Middle Archaic, a dramatic artiodactyl population expansion occurred during the cooler, wetter Late Archaic. Hildebrandt and McGuire (2003) and McGuire and Hildebrandt (2005) criticize Broughton and Bayham's "environmental determinism," arguing gender-differentiated fitness and work organization offers greater explanatory power.

Byers and Broughton (2004) consider Holocene Great Basin environmental change, artiodactyl abundances, and human hunting strategies. They conclude Great Basin artiodactyl populations were affected adversely by Early through Mid-Holocene warm/dry and/or highly seasonal climatic perturbations. When climatic conditions ameliorated during the Late Holocene (i.e., to cooler, wetter climate), artiodactyl populations in the Great Basin greatly expanded. Greater abundance of large game mammals during the Late Holocene increased human hunter's chances of encountering large, preferred, highly-ranked prey. Consequently, human diet breadth narrowed, with large artiodactyl prey favored. Smaller game, especially rabbits, was de-emphasized.

Variation in this pattern between different localities in the Great Basin results from differences in settlement patterns, environmental parameters, and anthropogenic factors. With respect to the former, travel/transport costs for hunters are critical. A shift in regional settlement pattern is a primary way in which hunting costs were lessened. Establishment of logistical hunting camps, such as apparently occurred in the Southwest, also is important (cf., Bayham 1982; Cannon 2000, 2003; Szuter and Bayham 1989). It is noted at some Great Basin localities (i.e., upland sites in central Utah, and sites in Surprise Valley in northeast California), which apparently have been well-watered throughout the Holocene, representation of artiodactyls remains is *high throughout* the Holocene. As the Late Holocene progressed, other localities experienced a decline of artiodactyl populations due to human hunting pressure. This mainly appears to have occurred in areas with relatively high human population densities (i.e., the "core" Fremont area in central Utah [Janetski 1997], and the Owens River Valley in eastern California [Grayson 1991, 2001]).

Carpenter (2002) postulates the expansion in Late Holocene hunting of large game mammals results from intergroup conflict. This produced "buffer zones," in which artiodactyl populations increased. In contrast to other parts of the Great Basin, Simons (2005), Simons and Kautz (2004), and Simons and Malinky (2006) observe lagomorphs, especially jack rabbits, overwhelmingly dominate Late Holocene faunal assemblages from sites located in the Truckee Meadows and environs.

Like Hildebrandt and McGuire (2002), and McGuire and Hildebrandt (2005), Zeanah (2004:26-28) convincingly states prehistoric hunting behavior in the Great Basin was strongly conditioned by the sexual division of labor, which emphasized the role women played in harvesting plant resources. Although Zeanah notes his model of prehistoric central place foraging and the sexual division of labor in the Carson Desert partly supports the Hildebrandt/McGuire model to some extent, important epistemological differences exist with respect to perceptions of the outcomes of sexual division of labor wish respect to men's hunting behavior:

> First, Hildebrandt and McGuire (2002:235) rather selectively call attention to only one faction (although a very persuasive one) in the debate among human behavioral ecologists concerning the evolution of the sexual division of labor and food sharing. That camp argues that large game hunting offers no provisioning advantage that could not be more efficiently gained by gathering, and that the evolution of hunting by males was little more than a form of sexual selection (Bliege Bird 1999; Hawkes 1990, 1991, 1996; Hawkes and Bliege Bird 2002; Hawkes et al. 2001; Smith and Bliege Bird 2000). There is another view that hunting males provide women and children with critical resources they could not otherwise easily obtain. In this view, standard optimal foraging models that intentionally reduce foraging choices to momentary caloric return rates simply do not monitor the fitness benefits of hunting. Those benefits may lie in protein rather than calories, require a lifetime of training to become proficient in acquiring, or are crucial at certain points in human life history (Gurven et al. 2000; Hill 1988; Hill and Kaplin 1993; Kaplin et al. 2000; Marlowe 2003) (Zeanah 2004:27).

Secondly,

> both camps of human behavioral ecologists agree that, whatever the cause for its selection, specialized male strategies for procuring meat have a long evolutionary history in the genus *Homo* (Kaplan et al. 2000; O'Connell et al. 2002). This makes it critical that McGuire and Hildebrandt demonstrate whey they expect "prestige-based" hunting to vary significantly within a relatively short span of time but broad expanse of space in western North America. They correctly point out that hunting and sexual division of labor are not hardwired into the human genotype and can be expected to vary in response to changes in the natural and social environment. However, the environmental changes that may have triggered such changes are not fully thought out (Zeanah 2004:28).

In the Late Holocene Carson Desert, intensified male logistical hunting is viewed as a predictable response to improved conditions in an environmental setting where women's foraging opportunities also improved. This area contains lowland wetlands with abundant women's resources. Adjacent uplands have few high-ranked women's resources (i.e., pinyon), but are relatively rich in high-ranked men's resources (i.e., big game, especially bighorn sheep). This contrasts with Hildebrandt and

McGuire's California scenario, where primary men's and women's resources occurred in very different ecological contexts, which may have been adversely affected by the Neoglacial. Zeanah (2004:28) concludes by observing Hildebrandt and McGuire may be correct that selection favored intensified, logistic hunting across a highly diverse region. However, their "prestige hunting" hypothesis is not presented in a testable fashion, and uses,

> theory developed to test hypotheses about the evolution of hunting in the Pleistocene against the behavior of modern hunter-gatherers, to loosely accommodate broad regional trends in western North American prehistory (Zeanah 2004:28).

Hockett (2005) considers Middle and Late Holocene hunting in the Great Basin. Examining data used in the Hildebrandt-McGuire/Broughton-Byers-Bayham debate, he concludes prehistoric Great Basin human foragers did not intensify artiodactyl hunting during the Late Holocene as opposed to the Middle Holocene. Instead, considerable variability in levels of artiodactyl hunting characterizes Middle and Late Holocene Great Basin sites, with differences often resulting from the location and setting of individual sites. Hockett (2005:728-729) concludes near the Middle-Late Holocene boundary, a change from encounter or ambush hunting involving small family groups to communal hunting of pronghorn by larger numbers of people using traps and corrals appears to have occurred. This resulted from changes in human social organization and technology at the Middle-Late Holocene interface. During the Late Holocene, the amount of consumption of small game is seen as a function of human population densities.

In the north-central Great Basin, a number of apparent aboriginal pronghorn traps/corrals have been identified (cf., Arkush 1999:40-43, Figures 3.3 and 3.4; Hockett 2005:721-726, Figure 1, Table 7; Lubinski 1999:165-168, Figure 3, Table 1, 180, Appendix 2; Murphy and Frampton 1986; Petersen and Stearns 1992; Stearns and Petersen 1987:96-101, Figures 5-1 and 5-2). In central Nevada, Thomas (1988:316-339) notes the presence of rock alignments in the Monitor Valley area. McGuire and Hatoff (1991) describe rock features comprising an apparent hunting complex in the Clan Alpine Mountains. In eastern California/western Nevada (i.e., Mono, Inyo, and Mineral Counties), Arkush (1986, 1999), Brook (1980), Delacorte (1985), and Lubinski (1999) note the presence of prehistoric pronghorn traps and "hunting complexes" composed of various types of rock features. North-central Nevada has several hunting feature complexes (Stearns and Petersen 1987:96, Figure 5-1). These include the Fort Sage Drift Fence, north of Reno, Nevada (Pendleton and Thomas 1983).

These apparent prehistoric hunting-related features may have been a part of prehistoric "hunting landscapes". Archaeological elements (cf., Arkush 1986, 1999; Brook 1980; Delacorte 1985; Hockett 2005; Lubinski 1999; McGuire and Hatoff 1991; Pendleton and Thomas 1983; Petersen and

Stearns 1992; Stearns and Petersen 1987; Thomas 1983a, 1983b, 1988; Zeier 1985) may include, but are not limited to:

- Tool production and maintenance sites (i.e., lithic scatters, quarry sites).
- Hunting enhancement sites (i.e., blinds, fences, corrals, “pounds,” traps, stands, pits).
- Hunting ritual sites (i.e. rock art sites).

It is expected site location will be controlled to a considerable extent by geologic and topographic variables. These include proximity to water and forage, prey migration routes, “yarding” areas and winter range, presence of tool stone outcrops, and so forth. Evidence indicating exploitation of plant resources (i.e., ground stone tools), and limited extended residence (i.e, house rings, domestic features), also may occur.

Prehistoric Carson Desert Land Use

The Carson Desert wetlands/marsh complex may provide an extremely fortuitous context to test models of changing human adaptation to a variable natural habitat. Central to an understanding of prehistoric human adaptation to the Great Basin is a debate regarding a continuum of environmental opportunities, and the willingness and ability of human groups to flexibly respond to these. Kelly (1985) initially suggested a desert lake or marsh environment is not stable enough nor productive enough to support a sedentary, or semi-sedentary, lifestyle, but acknowledges this habitat provides an expanded resource base, especially attractive during times of want. Kelly (1990, 1995b, 1997, 1999, 2001) subsequently argues the archaeology of Great Basin marshes, unaffected by the complicating effects of agriculture, can inform us about the development of hunter-gatherer sedentism. Consequently, models profiling prehistoric land use in the Carson Desert may be applicable to other wetlands in western Nevada, such as those in along the Walker River or in the Walker Lake area.

In contrast to divergent positions posited by Jesse Jennings (1964, 1973, 1978), whose Desert Culture concept is based upon informed exploitation of a dry desert environment; and the Berkeley group dominated by Robert Heizer, whose work at lake-edge sites uses a very different data set suggesting existence of a more sedentary adaptation next to lake shores (Heizer and Napton 1970; Napton 1969, 1970); Thomas (1985; 1990) and others offer a more integrated concept, termed the “limnomobile hypothesis.” This model stresses the ecological variability of lowland desert and upland habitats require a far more complicated adaptation, characterized by a mobile settlement pattern integrating exploitation of lake and marsh biomes into a reformulated Desert Culture lifeway.

Support for this scenario includes marsh resource-centered tool kits (i.e., nets, hooks, decoys) recovered from Lovelock and Humboldt Caves (Fowler 1990a); coprolites from these caves (Heizer 1967; Heizer and Napton 1969, 1970; Napton 1969, 1970; Rhode 2003); and vertebrate faunal remains occurring at sites located in the Humboldt and Carson Sinks (cf., Butler 1996, 2001; Dansie 1990; Livingston 1986, 1988, 1989, 1991, 2001; Schmitt and Sharp 1990; Sharp 2001). Relationships between prehistoric marsh-based lowland activities, and those occurring in nearby uplands, have been investigated by Great Basin scholars (cf., Cannon, et al. 1990; Kelly 1990, 2001; Oetting 1990; Raven 1990; Raven and Elston 1988, 1989, 1992; Rhode 1990b; Zeanah 2004), who reach various conclusions mostly supporting the limnomobile hypothesis.

During 1982-1986, a number of prehistoric archaeological sites in the Stillwater Marsh were exposed as a consequence of large-scale flooding. This led to the salvage of exposed human burials and testing and excavation at a number of archaeological sites (cf., Kelly 2001:15-16; Larsen and Kelly 1995; Raven 1990, 1994; Raven and Elston 1988, 1989; Rhode et al. 2000:58-67). Resultant archaeological data indicated during the last 4,000 years, a broad spectrum prehistoric subsistence strategy, emphasizing marsh resources, was practiced. This apparently heavily relied upon storage of seasonal surpluses, did not emphasize transport of upland resources, and was characterized by small-scale residential shifts occurring during the annual foraging round.

A regionally-based model for prehistoric site location in the Stillwater Marsh was developed by Raven (1990), and Raven and Elston (1989). It used soil survey data to predict the distribution and abundance of food resources. In turn, these predictions were utilized to infer the distribution of various prehistoric artifact classes. It was concluded that the Stillwater wetlands were the primary prehistoric foraging focus, and that foragers did not have to routinely leave the marsh. Fall was identified as the only time of year when extra-marsh resources (i.e., pinyon pine nuts) may have yielded a better return than marsh resources, if plant, fish, and waterfowl productivity in the marsh was low. Therefore, during most of the year, the Carson Desert wetlands contained enough food to feed people, with only minimal mobility occurring within, and not beyond, the wetlands.

However, this land-use model was mainly confined to the Carson Desert wetlands. Kelly (2001) integrates data derived from survey of all major Carson Desert habitats (i.e., marsh, dunes, South Valley, upper sagebrush, pinyon-juniper), excavation of cache cave and open air archaeological sites, and bioarchaeological analyses. These data sets are analyzed with respect to predictions derived from a foraging model based upon behavioral ecology. Energetic returns are calculated for several settlement scenarios. These take into account return rates for individual food resources and resource classes. The effects of seasonality, distance to resources, and environmental change on resource return rates also are considered.

Kelly (2001:289-303) concludes that through time, different mobility strategies were practiced by prehistoric peoples in the Carson Desert. Prior to approximately 1,500 B.P., the Stillwater Marsh may have been a hub of residential movements. After 1,500 B.P., a change in adaptive strategy toward a less residentially mobile and more focused use of wetlands occurred. This appears to have lasted until about 650 B.P. During this period, people inhabiting the Stillwater Marsh may have used the marsh as a source of stored foods. The marsh also may have been a wintering place. The Stillwater Mountains may have been used more frequently through logistical mobility. Year-round sedentism in the marsh is not indicated. After 650 B.P., a shift in marsh extent may have prompted settlement relocation. Foraging scenarios also may have altered as a consequence of population growth, and increased pinyon exploitation. Paleoclimatic data suggest the focus upon the Stillwater Marsh between c. 1,500-650 B.P. may have resulted in part from drier regional conditions, which would have reduced benefits relative to the cost of residential mobility. It also may have been a consequence of the Numic Expansion.

Reviewing previous studies of Late Holocene subsistence-settlement patterning in the Carson Desert region of western Nevada (Kelly 1990, 1995, 1997, 1999, 2001; Raven 1990; Raven and Elston 1988, 1989; Thomas 1985; Zeanah and Simms 1999) Zeanah (2004:4-6) notes these earlier works frequently are influenced by the "limnosedentary/limnomobile" debate, and often have an optimal foraging perspective. Other factors considered include logistical foraging strategies, transport costs, and climatic change. In summary,

> The prevailing limnosedentary model implies that women's foraging determined base camp locations and both men's and women's mobility strategies. Since marshes offered women's best foraging opportunities, wetlands were residential hubs of the subsistence-settlement system. (Zeanah 2004:6).

During the Late Holocene in the Carson Desert, it is posited a semi-sedentary gathering strategy replaced a mobile hunting-oriented strategy in response to lessened numbers of big game animals. This changed the influence of men's and women's work efforts upon determining residential location and mobility strategies, assuming both sexes foraged for the common good, as opposed to gender-differing goals. Zeanah's (2004:6-24) central place foraging model for the Late Holocene Carson Desert profiles men's and women's overall foraging contributions, as conditioned by resource abundance, return rates, and transport costs. Particular attention is given to the degree of spatial overlap existing between men's and women's foraging opportunities, conflicting foraging goals and patch choices between genders, and changes in foraging tactics produced by gender conflicts.

Zeanah (2004:25-26, 28) notes a hunting-oriented strategy probably did not exist in the Late Holocene Carson Desert. He argues that for a hunting-oriented settlement pattern to have developed, returns from men's hunting would had to have been high enough to reliably provision children. If this did not occur, men most likely would have logistically hunted from bases positioned to enhance women's foraging opportunities. Women focused their foraging efforts upon marshlands. In contrast, men concentrated their efforts upon terrestrial hunting patches. This produced scheduling conflicts between men's and women's primary foraging goals. The best resolution of these conflicts increased the logistical mobility of men, and tethered residence to wetlands, allowing both sexes to simultaneously exploit their primary foraging patches. Changes in foraging strategy most probably resulted from disruptions to wetland productivity caused by too much (innundation) or too little (dessication) water. It is concluded,

> . . . simple shifts in diet breadth are unlikely to trigger the gender-related shifts in settlement pattern and mobility strategy that Great Basin archaeologists have often envisioned in the past. Instead archaeologists should pay attention to conflicts of foraging interest between men and women, particularly as they affect women's needs to provision children, when formulating and testing models of subsistence-settlement change. (Zeanah 2004:28).

Following Kelly (2001), and Zeanah (2004), many prehistoric sites in the vicinity of wetlands in western Nevada, may have been occupied by composite social groups, composed of persons loosely related to one another, whose aggregation was determined by loosely interpreted rules governing residence. These groups, apparently specializing in vegetable food harvesting and preparation, probably mainly were composed of women and children (Rucks 1995:69, 1996). The presence of men, at least occasionally, is suggested by the abundant presence of lithic debitage and flaked stone tools, products generally assumed to result from men's activities, especially those concerned with provisioning for hunting. This diverse work group provided an opportunity for alliance and negotiation, as well as a training ground for children (Rucks 1995:133, 1996). Such a work group also allowed people to exchange information related to timing, availability, and distribution of food resources. As a consequence, many Carson Desert sites may have functioned as residential base camps and/or logistical camps, from which women foraged in immediately available dune and wetland habitats. Tethered to these base camps, men logistically hunted in both upland and lowland habitats. Communal hunting of lagomorphs, probably pursued by groups composed of both genders, apparently was an alternative hunting focus.

Prehistoric Lower Walker River Land Use

Rhode(1990b) addresses prehistoric settlement variability in upland areas located along the lower Walker River Valley and/or Walker Lake, including the Pine Grove Hills and the northern Wassuk Range. This study is framed with a larger regional context focused upon prehistoric lacustrine-oriented settlement in west-central Nevada. Travel time between resource patches is seen as a critical factor. Its effects on site/areal occupancy are investigated using simple cost-benefit models. The contrast between logistical movement and residential movement is highlighted. It is noted that at some critical distance, it is "cheaper" to move residentially than logistically. Therefore, the distance between resource patches is an important variable determining how occupation of particular areas is structured.

The Pine Grove Hills and Wassuk Range differ significantly with respect to artifact density and content. Over 150 times more lithic artifacts were observed in the Pine Grove Hills. Artifacts are more randomly dispersed in the Wassuk Range, and not as strongly clustered. Pine Grove Hills lithic assemblages are strongly dominated by flakes resulting from tool manufacturing, while those in the Wassuk Range are characterized by greater numbers of formed tools. Flake assemblages in the Pine Grove Hills generally consist of small flakes, with little or no cortex, which probably were produced by reduction of bifacial cores. In contrast, flake assemblages from the Wassuk Range have significantly more larger cortical flakes, suggesting reduction of more irregular cores occurred. In the Pine Grove Hills, expedient flake tools are much more common. Sites in the Wassuk Range generally are lithic scatters of moderate density and quantity, and often contain stone circles. Those in the Pine Grove Hills are typified by a much greater diversity of site types. Both the Pine Grove Hills and Wassuk Range appear to have been contemporaneously occupied.

Rhode (1990b:116-118) concludes the Pine Grove Hills display a greater intensity of prehistoric occupancy. A greater variety and frequency of activities appears to have occurred, especially residential-related activities. In contrast, prehistoric peoples using the Wassuk Range probably had a stable residential pattern focused upon the mouth of the Walker River, and the north shore of Walker Lake. They exploited upland resources, especially pinyon nuts, using a logistical mobility strategy. Prehistoric sites in the Wassuk Range therefore probably functioned as short-term pinyon-gathering sites located near residential bases at Walker Lake. In contrast, prehistoric sites in the Pine Grove Hills probably result from a more diversified suite of activities, mainly associated with residential occupancy of the pinyon zone.

It is concluded long-term residential patterning was stable in the Walker Lake area, and affected the Wassuk Range uplands in a manner consistent with a residential focus upon the lake. For prehistoric people living along Walker Lake, seasonal fishing undoubtedly was a major subsistence focus. Since Walker Lake is large, deep, has a relatively steep shoreline, and often fluctuates widely in space, a marsh-oriented subsistence-settlement pattern, such as that characterizing the prehistoric Humboldt and Carson Sinks, probably did not occur at the lake. Instead, its subsistence-settlement system probably was more analogous to that present along the lower Truckee River, and at Pyramid Lake. A major difference between these two localities is that pinyon nuts were readily available to Walker Lake people, but did not occur in the Lower Truckee-Pyramid Lake area. Rhode (1990b:118, Figure 7) notes that the four major lake basins in west-central Nevada (i.e., Walker Lake, Pyramid Lake, Carson Sink, Humboldt Sink) can be placed into separate categories based upon the abundance of marshlands, and the proximity to upland pinyon resources.

Prehistoric Subsistence-Settlement Questions

Flaked stone tools and flakes have been observed at prehistoric sites in the vicinity of the current project area. These provide information addressing the prehistoric subsistence-settlement issues discussed above. Of particular interest is the potential utility of the Kelly-Zeanah and Rhode models of prehistoric land use in the Lahontan Valley/Carson Desert and Lower Walker River uplands for the Walker Lake area.

- What types of prehistoric settlements/sites are present in the Walker Lake area?
- Is there correlation between particular physiographic, geomorphic, and/or biological phenomena, and site type and location in the Walker Lake area? If so, does this change through time?
- How do these sites/settlements develop and change through time in the Walker Lake area?
- What is the overall patterning in space and time of settlement in the Walker Lake area?
- Does assemblage composition provide evidence for particular economic activities, and associated factors characterizing site use (i.e., presence of hunting paraphernalia, distinct food processing tools such as hullers, and so forth)?
- Do chronologically and functionally distinct cultural assemblages occur, which can be associated with particular subsistence activities, and occupational intensities, in the Walker Lake area? Do these change in space and time, and are transitional expressions present?
- Do chronologically distinct assemblages, suggesting transitional subsistence activities and occupational intensities occur?

- Is there data indicating shifts in subsistence emphases from the Middle to the Late Archaic (i.e., reduced emphasis upon large game, increase in diet breadth, less elaborate lithic technology)? If so, what are these, and how are they manifested?
- What evidence exists regarding intensification through time upon particular plant and animal resources in the Walker Lake area? In particular, is evidence present regarding the temporal and spatial parameters of the development of hunting, fishing, and geophyte and hard seed harvesting?
- What are the functional and/or temporal dynamics of prehistoric seed harvesting/processing in the Walker Lake area?
- What are the functional and/or temporal dynamics of prehistoric root/bulb harvesting/processing in the Walker Lake area?
- What is the evidence regarding timing and intensification of pinyon exploitation in the Walker Lake area?
- What are the functional and/or temporal dynamics of prehistoric faunal exploitation and intensification in the Walker Lake area? Does evidence exist indicating increased Late Holocene exploitation of artiodactyl herbivores, or do rabbits/rodents appear to have been preferred prey at this time?
- To what extent are upland versus lowland habitats emphasized through time, and is there evidence indicating intensification through time upon the former?
- Does exploitation of wetland habitats/resources appear correlated with particular climatic events?
- Does use of wetland resources intensify through time?
- What is the role of prehistoric fishing in the Walker Lake area?
- How do these settlement-subsistence attributes in the Walker Lake area compare and contrast with those characterizing other lowland basins in western Nevada?

2.2.4 Prehistoric Lithic Technology

Procurement of Lithic Resources - Lithic Reduction

During the Archaic Period, tools requiring a cutting edge or pointed tip were manufactured from siliceous, and other stone of an aphanitic consistency. Typical types of cutting tools produced included projectile points, knives, drills, burins, and scrapers. Many of these tools were formed by means of a flint knapping process involving progressive biface reduction, in which a flake is struck from a core, and then shaped by removal of small flakes using percussion and/or pressure flaking techniques (Callahan 1979, Odell 2004). Since flakes struck from a core typically have sharp edges, they also may be used as expedient tools with little or no modification (Kelly 1988). Cutting, scraping, and planing are tasks for which these expedient flake tools were appropriate. Expedient flake tools often appear to have been discarded after casual use, since their working edges normally do not exhibit extensive wear.

Elston and Budy (1990; Chapters 14 and 15) discuss the economics of raw material acquisition in terms of a cost-benefit model, and the quantified utility of various types of tool stone present at James Creek Shelter. The general themes of lithic procurement and utilization also are addressed by Elston and Raven (1992) in their evaluation and mitigation of localities in the vicinity of the Tosawihi cryptocrystalline silicate (CCS) quarries, referred to in their entirety as the project's "lithic terrain." This and related work (cf., Elston 1986b, Elston et al. 1995) suggests study of economic trends characterizing prehistoric Great Basin lithic technology and stone tool use most profitably are conducted using economic modeling focused upon cost-benefit analyses. These models are based on an assumption of the universality of "economizing" behavior, including the observation that decreasing residential mobility results in increased costs of tool stone procurement.

> This, in turn, leads to a variety of economic adjustments, including increased dependence on local tool stone sources, tolerance of lower tool stone quality, restriction in use of high quality tool stone for certain specialized tools or ceremonial objects, and adoption of a technology of conservation (small tool size, means of recycling tools). (Elston 1986b:81).

Hypothetical measurement (indices) of lithic cost and "value" are provided in Table 2.2. Theoretically, tool stone with a high ratio of waste debitage to workable material should be more costly to process and obtain. The reverse occurs when procurement costs are low, and incentives for conservation are lacking. For this, and other reasons, lithic waste is difficult to quantify, because materials constantly were distributed across the landscape as a result of ongoing staged tool manufacture and maintenance. There should, however, be differences between manufacturing processes (i.e., tool production using standardized reduction techniques), and tool kit maintenance. The former should produce a temporally bounded reduction continuum (Flenniken 1985), while the latter should provide a truncated debitage assemblage, favoring dominance of late stage materials, shatter, and broken tools. It is ironic Flenniken takes others to task for not taking into account artifact reuse (i.e., of projectile points) when it is entirely possible one persons lithic waste is another's (obviously a later ones) tool stone quarry.

Table 2.2 Indices of Lithic Cost/Value (after Elston 1986b:82)

Indices	Variable (Numerator)	Normalizer (Denominator)	Units of Analysis	Archaeological Relevance
Distance to Source	Kilometers	----------	Kilometers	Cost, value
Material Index	Debitage by material	Total site debitage	Items or weight, ratio%	Relative onsite reduction; value
Stage Index	Debitage by material with cortex	Total debitage of particular material	Items or weight, ratio%	Staging strategy; relative distance; value
Cortex Index	Debitage by material with cortex	Total debitage of particular material	Items or weight, ratio%	Staging strategy; relative distance; cost in wastage
Weight/Item ratio	Grams of debitage by material	Items of debitage by material	Average debitage weight	Relative distance; cost in wastage
Core Index	Spent cores	Total cores and tools	Items; ratio %	Staging strategy; relative distance

Procurement of Lithic Resources - Mobility Issues

With respect to the organization of lithic technologies, McGuire et al. (2004:24-25) note analysis of artifact assemblages often provides important insights regarding hunter-gather subsistence-settlement strategies. For example, highly mobile strategies often produce functionally-specialized artifact assemblages composed of easily maintained, highly portable, extremely durable, extensively curated tools, which were transported and used for extended periods before they were replaced. In contrast, less mobile groups frequently had tool kits composed of more expedient, less efficient tools, which can be more reliably and predictively replaced.

McGuire et al. (2004:25) comment during Early Archaic times, from 7,000 to 3,500 years B.P. in the Great Basin, flaked stone tool technologies made greater use of prepared cores of almost any type of tool stone. This allowed considerably greater flexibility in settlement, since people did not have to visit particular quarries in a carefully scheduled manner. During the Middle Archaic, c. 3,400-1,400 years B.P., large, standardized bifaces were produced at a number of regionally prominent CCS and other tool stone quarries. These bifaces often were transported hundreds of kilometers from the quarry where they were produced, suggesting Middle Archaic settlement-subsistence adaptations were practiced by very wide-ranging, logistically well-organized, highly mobile groups. By Late Archaic times, from approximately1,400 years B.P. on, people appear to have focused their activities upon much smaller areas. Prepared cores disappear, and bifaces play a less significant role.

Both are replaced by a core-flake technology, and expedient flake tools, usually made from local tool stones. Flaking becomes largely restricted to pressure-retouch.

In the Truckee Meadows, Elston et al. (1995:46-47; see also Elston et al. 1994; Moore and Burke 1992; Zeier and Elston 1986) note that an emphasis upon biface technology dominates flaked stone tool assemblages during both the Martis and King's Beach Phases in the South Truckee Meadows. Core/flake technology also was utilized to some degree at this time. Through time, differences in biface technology probably resulted from changes in projectile point form (i.e., the shift from dart to arrow points) and tool stone choice. Specifically, the shift from the atlatl and dart to the bow and arrow changed projectile point manufacture from a reduction strategy, producing both percussion-flaked bifacial preforms and pressure-flaked flake blank preforms, to one characterized by exclusive use of flake blank preforms. However, the need for larger, bulkier bifacial tools (knives, thrusting spear points, atlatl points, etc.) resulted in the fact that biface production continued, though in a somewhat reduced fashion.

Distance to tool stone source is viewed as the principal factor determining whether tool stone is brought to a site as blocks of stone, prepared blanks, or partially finished/finished tools. Between Martis and King's Beach times, a transition from relatively inefficient tool stone use, and an associated generalized technology designed for a wide range of functions, to more efficient use of tool stone, manifested by tool stone conservation (i.e., reuse, reworking, and rejuvenation of tools and debitage), and development of a more specialized tool kit is posited. Martis Phase assemblages are characterized by dart points, large bifaces, utilized and retouched flakes, and battered cobbles. King's Beach Phase assemblages have arrow points, smaller bifaces, scrapers, and sometimes hullers. Bedrock milling features, and pointed tools (i.e., drills, perforators, gravers), are most abundant in King's Beach Phase assemblages, and manos/metates are slightly more common than in Martis Phase assemblages.

Kelly (2001:73-76, Table 4-2) presents a dichotomous scheme relating prehistoric lithic assemblage attributes to mobility strategies (Table 2.3). These are seen as not mutually exclusive, but as ends of a continuum of assemblage variability. In his analysis of lithic debitage from Carson Desert and Stillwater Mountains sites, Kelly (2001:163-171, Tables 6-23 and 6-24) notes in dune sites, CCS is the dominant tool stone, with lesser amounts of other tool stones present. The lithic debitage profile from dune sites indicates recycling and bipolar knapping occurred. This produced common bipolar and single platform flakes, and a high frequency of shatter. Artifact analysis from sites in this region (Kelly 2001:171-175, Table 6-25) reveals dune sites generally contain more utilized bipolar flakes, whole projectile points and point fragments, bipolar cores, manos, and metates than expected.

Utilized single-platform flakes, biface fragments, and scrapers occur in lesser numbers than expected.

Table 2.3 Lithic Assemblage Expectations for Different Mobility Strategies (From Kelly 2001:73, Table 4-2)

Lithic Assemblage Attribute	High Residential Mobility/ Logistical Mobility	Low Residential Mobility/ Sedentism
Lithic Raw Material	CCS	Siltstone/Tuff/Rhyolite
Evidence of Bifaces As Cores	Common	Rare
Evidence of Bifaces as By-Products	Rare	Common
Bipolar Knapping/Scavenging	Rare	Moderate to Common
Flake Tools	Rare to Moderate	Common
Fire-Affected Rock	Rare	Common
Site Size/Density	Small/Low	Large/High
Tool/Debitage Ratio	High	Low
Biface/Flake Tool Ratio	High	Low
Complete Flakes	Rare	Common
Proximal Flake Fragments	Common	Rare
Distal Flake Fragments	Common	Rare
Angular Debris (i.e., Shatter)	Rare	Common
Assemblage Size/Diversity	Low Slope	High Slope

Prehistoric Lithic Technology Questions

At prehistoric sites in the vicinity of the current project area assemblages of lithic debitage and flaked stone tools occur which potentially allow examination of the lithic reduction sequence occurring at these sites. This in turn contributes to discussion of site function, mobility patterns, patterns of tool use, and so forth. Relevant questions include:

- What tool stone preferences are manifested through time in the Walker Lake area?
- Can tool stone preferences be explained in terms of individual/group mobility in the Walker Lake area? If so, how do these change through time, and what are their parameters? In particular, do data exist suggesting changing mobility patterns through time, evidenced by distances from tool stone sources?

- What changes/similarities in stone tool assemblage composition characterize different temporal periods in the Walker Lake area?
- Are data indicating the sequence of tool stone reduction occurring from the quarry to eventual use present in the Walker Lake area? Are there meaningful differences in the lithic reduction trajectory correlated with temporal, spatial, or functional differences within or between sites?
- Do debitage profiles and biface stage representations provide evidence indicating emphases in flaked stone tool manufacture, and occupational scenarios characterizing sites?
- Is an increasing emphasis upon flake-blank preforms, as a consequence of the change over from use of dart points to bow-and-arrow points, indicated in the Walker Lake area? If so, when and where does this occur?
- Are data available to test "efficiency models" of changing tool stone utilization, and assemblage composition between major temporal periods in the Walker Lake area?
- Is there evidence suggesting changing patterns through time of expediency versus planned use in tool stone selection, and tool finish techniques in the Walker Lake area? If so, what form(s) does this take?
- Is McGuire et al's. (2004) mobility-based model of Holocene tool stone utilization in the Great Basin supported? Does Kelly's (2001) lithic assemblage attributes/mobility strategy model apply?
- Are there changes through time in the emphasis placed upon heat treatment of aphanitic tool stone, indicating changing labor input over time, suggesting a greater degree of raw material preparation?

2.2.5 Prehistoric Trade and Exchange

Trade and exchange are important methods for acquiring cultural commodities, as both raw materials and finished products. The course and extent of trade routes, as well as their implied cultural interfaces and links, provide insights into relationships between neighboring groups, and potential sources for cultural borrowing and diffusion. Changes in patterns of trade and exchange through time often indicate shifting patterns of alliance, and breaks in cultural continuity. In west-central Nevada, and adjacent portions of the Great Basin, issues concerning prehistoric trade and exchange have been addressed through observing the presence of exotic materials at archaeological sites, and noting their distributions across space and time.

This primarily has been studied by sourcing obsidian, basalt, and CCS debitage and flaked stone tools (cf. Ataman 1999; Day et al. 1996; Delacorte 1997a, 1997b; Hughes 1984, 1986, 1994; Hughes and Bennyhoff 1986; Hutchins and Simons 2000; Jones et al. 2003; McGuire 2002c; McGuire et al. 2004; Waechter 2002b). Insights regarding the dynamics of prehistoric exchange and trade are provided through examination of the emphasis placed upon utilization of locally versus exotically derived tool stones. Other exotic artifacts, especially beads and ornaments made from marine shell, also have been used to monitor prehistoric trade in the Great Basin (Bennyhoff and Hughes 1987; Hughes and Bennyhoff 1986).

In the prehistoric Great Basin, raw materials for manufacture of stone tools were procured in three principal ways. First, tool stone could be secured from a quarry, such as a large deposit of siliceous stone, an outcrop of volcanic materials, such as aphanitic basalt or obsidian, nodules of sinter or chalcedony occurring around a hot spring, and so forth. Quarries typically were visited during seasonal subsistence rounds, when annual movements to food resource localities brought a group near a known quarry site. A quarry also might be visited by an individual or small group for the primary purpose of procuring lithic materials. Additionally, lithic material could be derived from cobbles and boulders of siliceous and other tool stones redeposited in stream beds and alluvial fans. These local lithic sources sometimes are called opportunistic quarries. Finally, lithic materials could be obtained as a commodity through trade and exchange.

These three basic methods for procuring lithic resources were not mutually exclusive and all were used by prehistoric peoples in the western Great Basin. However, the degree to which any one method was emphasized was affected by relationships with neighboring groups, shifting subsistence patterns, depletion of local resources, territorial range, intergroup conflict, and so forth. Consequently, the degree to which any specific lithic procurement method was used by any particular group often varied through time (Elston and Budy 1990: Chapters 14 and 15, Elston and Raven 1992).

Prehistoric Obsidian Sources for the Lahontan Valley/Carson Desert

A scenario of prehistoric obsidian procurement has been formulated for the Lahontan Valley/Carson Desert, which may serve as a model for surrounding areas, such as the Walker Lake area. Hughes (1985) sourced a total of 176 obsidian artifacts from Hidden Cave. Among these were 153 projectile points, dominated by Gatecliff Series points (N=103; 69.3%), dating to the period c. 5,000-3,000 B.P. In addition, 23 other obsidian artifacts also were sourced. Inyo obsidian sources dominated the sample (N=115; 75.2%). Among these, Mount Hicks and Bodie Hills most commonly were represented. Majuba Mountain obsidian was relatively abundant (N=26; 17.0%), with lesser amounts of unknown (N=9; 5.9%), and northwest Nevada (N=2; 2.0%) obsidians present.

In a subsequent study, Hughes (2001) sourced 71 obsidian artifacts, among which were 52 projectile points, from sites located in the Carson Desert and Stillwater Mountains. In this sample, Late Archaic Rosegate and Desert Series projectile points are most abundant (N=32; 61.5%). In the total sample of artifacts, Inyo obsidian sources are most frequently represented. (N=31; 43.7%). Majuba Mountain also is common (N=17; 23.9%). However, northwest Nevada sources, especially Unknown B/Buffalo Hills (Young 2002), are common as well (N=17; 23.9%). Single specimens of obsidian from central Nevada (Crow Spring), northern Nevada (Double H Mountains), and the Truckee Meadows (CB Concrete) also are present, along with four unknowns. Hughes's analyses suggest through time, in the Carson Desert and environs, use of obsidian from Inyo sources decreases, use of obsidian from the Majuba sources remains constant, use of obsidian from northwest Nevada sources increases, and that several other localities in central and northern Nevada, and the Truckee Meadows were accessed. This is at variance with some models of obsidian utilization, which hypothesize increasing reliance upon more-and-more limited and/or local sources occurred through the Holocene.

The marked abundance of Inyo-Mono obsidians in the Lahontan Valley/Carson Desert suggests a close cultural relationship existed prehistorically between peoples inhabiting both areas. Temporally diagnostic projectile points made from Inyo-Mono obsidians occurring at Lahontan Valley/Carson Desert sites suggest this relationship lasted from the Late Early Archaic Period until historic times (i.e., during the last approximate 5,000 years). Native Peoples inhabiting the Lahontan Valley/Carson Desert probably obtained Inyo-Mono obsidians directly from their sources, and/or as commodities traded for a variety of goods with neighboring Native Peoples.

The Western Nevada Obsidian Exchange Sphere

Of further interest is the extremely minimal representation throughout approximately the last 5,000 years at Lahontan Valley/Carson Desert sites of obsidian derived from fairly close local sources, such as Sutro Springs and CB Concrete, located west of the Lahontan Valley/Carson Desert. Patterns of obsidian source representation characterizing the Truckee Meadows and environs suggest existence of a prehistoric obsidian exchange sphere congruent with the ethnohistoric distribution of Washoe peoples (Hutchins and Simons 2000). McGuire (2002c:102), following Delacorte (1997b:156), concludes Sutro Springs obsidian may be a "signature" associated with ancestral Washoe peoples. This source occurs at the eastern boundary of the ethnohistoric Washoe "core area," (d'Azevedo 1986:468, Figure 1; Price 1980:83, Plate I), approximately 41 km southwest from the current project area. Another possible obsidian "signature" associated with prehistoric Washoe peoples is the C.B.

Concrete source, located at the base of the Virginia Range in the southeast corner of the Truckee Meadows, approximately 56 km west from the current project area.

Prehistoric distribution of Sutro Springs and CB Concrete obsidian tools and lithic debitage is almost isomorphic with the historic distribution of Washoe-speaking peoples (d'Azevedo 1986:468, Figure 1; Price 1980:83, Plate I). As noted previously, both sources are located in territory historically occupied by the Washoe. Sutro Springs and CB Concrete obsidian may have circulated within an exchange network set in motion and maintained for some time by prehistoric Hokan-speaking peoples living along the Eastern Front of the Carson Range in western Nevada. This conclusion agrees with Elston's (1994) thoughts regarding Washoe prehistory (see also Elston et al. 1995).

Prehistoric barriers for dissemination of Sutro Springs and CB Concrete obsidian east and north from the Truckee Meadows region apparently existed. McGuire (2002c:95-96, Table 20; 101-102) notes Sutro Springs obsidian only occurs along the Alturas Intertie/Tuscarora Pipeline corridors at Sierran Front sites in the Reno vicinity. These two sources are not represented at Rye Patch Reservoir sites (Rusco and Davis 1987), or at sites located on the north side of former Lake Winnemucca (Hughes 1994). As noted previously, the extensive suite of sourced obsidian artifacts from Hidden Cave (Hughes 1985) has no Sutro Springs or CB Concrete specimens. At prehistoric sites in the Carson Desert and Stillwater Mountains, only one CB Concrete artifact is present (Hughes 2001).

Prehistoric Trade and Exchange Questions

The presence of relatively abundant obsidian tools and debitage at prehistoric sites located in the immediate project area suggests research questions regarding the dynamics of past obsidian procurement can be addressed. Of particular interest is whether the models of obsidian procurement outlined above are applicable to the Walker Lake area.

- Are obsidian and CCS artifacts present in large enough sizes and quantities to provide statistically-reliable data regarding prehistoric quarry locations and trade/exchange relations in the Walker Lake area?
- Through time, do proportions of local versus exotic obsidian and CCS sources change in the Walker Lake area? Are local tool stone sources increasingly emphasized through time? If so, which ones?
- Does evidence of prehistoric enmity, suggested by presence of a barrier(s) in tool stone distribution(s) occur in the Walker Lake area? If so, between what regions, and at what time(s)?

- Is there evidence suggesting the presence of possible "interaction spheres" for tool stone exchange in the Walker Lake area? If so, what are the spatial and temporal parameters? Can "interaction spheres" be linked to particular prehistoric groups, or ethnohistoric Native Peoples? What are the spatial parameters and temporal duration of a possible western Nevada "Washoe Interaction Sphere," as defined by Delacorte (1997a, 1997b), and Hutchins and Simons (2000)?
- Are artifacts present in the Walker Lake area that are made from other exotic materials (i.e., shell beads and ornaments)? If so, what are their source point(s), and their spatial and temporal parameters?
- How does obsidian sourcing and hydration data from the Walker Lake area compare and contrast with sourcing/hydration determinations currently made for artifacts from sites in the Truckee Meadows and environs, and in the Lahontan Valley/Carson Desert and environs?

2.3 ETHNOHISTORIC CONTEXT

Although there has been a marked presence of Paiute people in the Walker Lake area historically (Inter-Tribal Council of Nevada 1976:93-102; Johnson 1975), the project area displays no signs of use by historic Native Americans. The Northern Paiute are described by Bard et al. (1981:70-114; Fowler (1982, 1989, 1990a,1990b, 1992); Kelly (1932); Lowie (1924); W. Z. Park (Fowler (1989); Riddell (1960); Steward (1938); and Stewart (1939, 1941, 1966), among others. Much of this information is summarized by Fowler (1982), and Fowler and Liljeblad (1986). The Northern Paiute are Great Basin Numic speakers (Miller 1986). They ranged over a vast area, extending from the Owens Valley, California, north through western Nevada, extreme northeastern California, and southeast Oregon, to the John Day River (for a map see Fowler 1989:xvii, Figure 1; 2, Figure 6; 1990b:18, Figure 3; 1992:8, Figure 3; Fowler and Liljeblad 1986:437, Figure 1; also see Stewart (1939:Map 1; 1941:iv, Map 1; 1966:207-214, Maps 4-11, 218:Map 15, 220, Map 17; Wheat 1967:ix, Map).

The *Aga´idökadö* ("trout eaters") subgroup of the Northern Paiute focused their activities around the lower portion of the Walker River (Fowler and Liljeblad 1986:437, Figure 1, 463; Stewart 1939:Map 1, 141-142). The current project area appears to be within the territory of the *Pakwidkadö* ('chub eaters")at the time of contact (Fowler and Liljeblad 1986: 437, Figure 1, 464; Stewart 1939:Map 1, 142). They had a population of about 100 persons, who occupied a territory approximately 2,000 square miles in extent. Steward (1933:236) comments that the Walker Lake Paiute were the *Agai dika*, "fish eaters". To the east lived the *Pahu mu witü* (some derivative of *Paya´*, "water").

At the time of contact with Euro-Americans, the Northern Paiute had a number of linguistically homogeneous, but culturally and politically distinct groups. These were composed of smaller ecologically and geographically defined subgroups, none of which was politically integrated into a larger political unit, such as a "tribe." With respect to the structure of so-called "food-named groups" among the Northern Paiute, Fowler (1982:113) notes camp groups of up to ten co-resident families occupied discrete home districts. These groups frequently were given food-name designations and played key roles in defining resource rights. In more densely occupied areas, these were actively defended. Individuals could move freely between home districts, but had to contact local residents before pursuing hunting and gathering activities. Home districts occupied by food-named groups usually were contiguous with natural drainage systems, and gave a lasting regional identity to people raised there. Food-named groups probably provided key information regarding availability of particular resources to people living at a distance, affecting the relation of population to resources over large areas. Summarizing, Fowler (1982:125) notes:

> In theory as well as practice, family or camp groups were the fundamental social and economic units. They tended to form informal aggregates in localities of rich resources, but the bonds between and among camps were not sufficiently strong to exclude or set off as outsiders all like units from other localities. Moreover, continued membership in a local group beyond the level of the camp was determined by a number of factors, including availability of resources from year to year, habit, interests, and kinship. Seasonal associations of families and camps tended to persist year after year, but changes were sufficiently numerous to keep the membership of any one larger group in a general state of flux. These larger groups derived their names from one of the more abundant foods of the region in which they gathered annually, but had not sufficient organization and solidarity to set themselves off absolutely from all others.

Characterized by a semi-nomadic, centrifugal settlement pattern in the spring, summer, and fall, with most nuclear families or kindreds gathering together to form a larger village with more permanent house structures during the winter months, the Northern Paiute had no regularized, semi-predictable pattern of movement. A somewhat even distribution of time and energy was spent between fishing, hunting, and gathering activities.

2.4 THE HISTORIC RECORD

2.4.1 Early Historic Period Euro-American Explorers and Emigrants

During the period 1827-1845, Walker Lake was visited by a number of early Euro-American parties. During May 1827, Jedediah Smith left California by ascending the North Fork of the Stanislaus River, and passing over Ebbits Pass (Cline 1963:156-158; Dale 1941:189-note; Elliott 1987:34-36; Hulse 1991:37-39; Johnson 1975:18; Morgan 1953:210, 418; Taylor n.d. Pt. II:5). Descending via the East Fork of the Carson River and the West Fork of the Walker River, Smith and his two companions headed east, possibly skirting the south end of Walker Lake. Leaving what was to become the Hawthorne area, the party continued east between the Gabbs Valley and Pilot Ranges, and then around the south end of the Shoshone and Toiyabe Mountains.

In Early Summer 1829, upon reaching the Humboldt River, Peter Skene Ogden's Sixth Snake Country Expedition followed it west and south to its sink (Cline 1963:125-127, 1974:91; Elliott 1987:36-38; Hulse 1991:39; Johnson 1975:18-19; Taylor n.d. Pt. II:5-6) The party then went south/southwest, probably passing through the Carson Sink. Continuing south, it proceeded to the lower Walker River, which was followed down to Walker Lake. Finding no beaver, from Walker Lake, Ogden's group continued southwest, apparently ultimately reaching the Owens River and Owens Lake. From there, they went farther south to the Colorado River. Leaving the Colorado, Ogden's party traversed the Mojave Desert, and crossed Tehachapi Pass into the Central Valley of California.

In February 1834, after over-wintering in California, Joseph Walker's party left Monterey, went south through the San Joaquin Valley, crossing the southern Sierra Nevada via Walker Pass (Cline 1963:172-177; Elliott 1987:38-40; Hulse 1991:40; Johnson 1975:21; Taylor n.d. Pt. II:6-7) His party then went up the Owens River Valley, and into Nevada, probably going along the subsequent route of the Carson and Colorado Railroad. From the vicinity of Sodaville-Mina, they headed north-northeast, east of Walker Lake. There, the lack of water, wood, and grass almost brought disaster to Walker's party. Turning westward, Walker's group reached the Walker River north of Walker Lake. They continued more-or-less west until they found their trail from the previous year, following it back to the Carson Sink.

In 1841, an emigrant party led by John Bartleson and John Bidwell was the first major group to directly head for California (Cline 1963:183-185; Elliott 1987:40-41; Hulse 1991:44-46; Johnson 1975:21; Nunis 1991:90; Taylor n.d. Pt. II:7-8) On October 7, along the Humboldt River west of

Winnemucca, Bartleson and seven others left the main party, which then continued down the Humboldt River to its sink. Heading more-or-less south, it most likely traversed the Carson Desert, went southwest past present-day Wabuska, and continued south through Mason Valley along the Walker River. The main party then went west through Smith and Antelope Valleys, camping at the foot of the Sierras near Coleville. There, on October 16, they were rejoined by Bartleson's group whose nine-day detour probably went south to Walker Lake where local Paiute gave them fish and pine nuts. The recombined party then probably crossed the Sierra Nevada at Sonora Pass, and descended the Stanislaus River into the Central Valley.

During 1843, the Walker-Chiles group made the trip to California, led by Joseph Walker and Joseph Chiles, who had been a member of the Bidwell-Bartleson party (Cline 1963:187; Elliott 1987:41; Johnson 1975:22). Following the Humboldt River to its sink, this group went south to Walker Lake. They then continued south to Walker Pass. This was the first emigrant group to bring their wagons overland to California through the Great Basin.

During January 1844, John C. Frémont pioneered a trail south from Oregon into northwestern Nevada (Cline 1963:210-215; Elliott 1987:42-45; Hulse 1991:41-42; Johnson 1975:22-23; Taylor n.d. Pt. II:8-10). After reaching Pyramid Lake on January 19, 1844, Frémont followed the Truckee River south to Wadsworth, noting the lake and river's significant fishery resource (La Rivers 1962:294-295 Sigler and Sigler 1987:13; Townley 1980, 1983:27). He then went south to the Carson River. After following the Carson River east to the Carson Sink, Frémont turned back towards the Sierra Nevada, journeyed south through Wabuska and Mason Valley to Bridgeport Valley in California. He then followed the route of present-day U.S. Highway 395 north to the East Walker River, and crossed over Carson Pass into California.

In 1845, Frémont led a party west into Nevada (Elliott 1987:42-45; Hulse 1991:41-42; Johnson 1975:22-23; Spence and Jackson 1973:26-28 [Frémont's account], 51-54 [Kern's account]; Taylor n.d. Pt. II:8-10). Near Shafter in northeast Nevada, his party split into two groups to better map central and western Nevada. One group, led by Theodore Talbot and Joseph Walker, followed the Humboldt River down to its sink. The other, commanded by Fremont, continued southwest through north-central Nevada, reaching Walker Lake on November 24, 1845. Three days later they were joined by Talbot and Walker's group.

While they were at Walker Lake, Frémont and his party camped and explored along the north and east sides of the lake. On several occasions they encountered local Paiute people. Frémont named Walker Lake and River after Joseph Walker. On November 29, Frémont's group went north from

Walker Lake to the Truckee River, and followed the river west into the Truckee Meadows. They subsequently ascended the river, going over Donner Pass to California. Following Frémont's orders, Talbot and Walker headed south into the Owens Valley on December 10.

2.4.2 Historic Native Americans

The Walker River Reservation

The Inter-Tribal Council of Nevada (1976:93-102), and Johnson (1975) provide a history of the Walker River Paiute. On November 29, 1859, approximately 318,809 acres of land including Walker Lake were withdrawn for the Walker River Paiute Indian Reservation. An Executive Order of President Ulysses S. Grant on March 19, 1874 officially established the reservation. From the inception of their reservation, the Walker River Paiute resisted efforts on the part of Euro-Americans to convince them to abandon this land. In 1880-1882, the Carson and Colorado Railroad Company negotiated a right-of-way for the railroad through the reservation. Although the railroad promised compensation, and the right of free transportation for the Walker River Paiute, and their fish, game, and other products, it soon was reluctant to honor these provisions. During the late 19th century, various farming efforts occurred on the reservation, with alfalfa, clover, wheat, barley, produce, livestock, and poultry produced. These met with varying degrees of success, and were affected by problems of water supply, drought, and economic depression.

Beginning in the early 1880s, pressure increased favoring abandonment of the Walker River Reservation. With the support of U. S. Senator William Stewart, a particular focus became divestment of Walker Lake from the reservation, and allotment of reservation lands. In 1902, Senator Stewart succeeded in passing an amendment providing for allotment of the Walker River Reservation. On July 20, 1906, the Walker River Paiute Indian Tribe ceded 268,000 acres of their reservation to the United States, including all the land surrounding Walker Lake. The remaining 50,809 acres of the reservation were allotted to tribal members in 492 20 acre parcels. Of the remainder, 37,390 acres were set aside for grazing, and 3,355 acres reserved for timber. On September 26, 1906, President Theodore Roosevelt officially proclaimed that all lands within the reservation that had not been allotted were open to settlement on October 29, 1906. Soon, the town site for Schurz was established, becoming the largest non-Paiute owned block of land within the reservation.

On January 1, 1909, the Walker River Indian Agency began its 26-year tenure. Its initial years were marked by conflicts between its superintendents and the Walker River Paiute. Water shortages continued to plague the reservation, and the tribe began to press for legal action to secure their water rights. In 1918, a presidential executive order added 34,000 acres of land east of Schurz to the reservation. This was followed in 1928 with another 69,000 acres of grazing range east of Schurz granted by the U. S. Congress. With the advent of Franklin Roosevelt's administration in 1933, the Indian Reorganization Act was implemented in 1934, and the Walker River Agency was abolished in 1935.

In 1936, Congress added over 171,000 acres to the reservation. The years 1936-1939 marked legally-based establishment of a water allotment for the reservation. During February 1937, the Walker River Paiute voted in favor of adopting a constitution, allowing for a tribal council, which subsequently has been the reservation's governing body. Since its formation, the council has concerned itself with a host of issues, including further expansion of reservation water rights, relations with the Southern/Union Pacific Railroad, schools, formation of a cattle association, mineral and land allotments, fishing, Native American land claims, law enforcement, housing, and public health, among others.

The Ghost Dance Religion

The 1870 Ghost Dance Religion began in 1869, when Wodziwob declared his mission in Walker Lake Valley (Du Bois 1939:3-7; Hittman 1973a, 1973b; Jorgensen 1986:660-662; Smoak 2006:114-121). This religion subsequently spread north and east in the Great Basin, and west into California. It reached its ultimate expression among far western Native Peoples in California as the Earth Lodge Religion and Bole Maru ("Big Head") Religion (Bean and Vane 1978:670-672; Du Bois 1939; Gayton 1930; Meighan and Riddell 1972).

Approximately 20 years later, a second Ghost Dance Religion originated among the Mason Valley Paiute, with Wovoka (Jack Wilson) as its prophet (Bailey 1970; Dangberg 1968; Hittman 1973a, 1973b, 1997; Hulse 1991:156-157; Jorgensen 1986:662; Kehoe 1989:3-9, 30-38; Logan 1980; Mooney 1896; Moses 1980, 1985, 1987; Smoak 2006:166-173; Stewart 1977). Considerable attention has been focused upon Wovoka's life and message. This version of the Ghost Dance spread east through the Great Basin, ultimately reaching a number of Native Peoples inhabiting the Great Plains. In 1890, it attained its ultimate, tragic conclusion in the Wounded Knee Massacre.

Historic Fishing in Walker Lake and the Walker River

Speth (1969) comments upon historic fishing cliques among the Walker River Paiute. These were non-kin exclusive membership groups of six men, lasting for the lifetimes of the majority of the members. The main economic focus was upon fishing for cutthroat trout. One clique fished during February-May along the Walker River, using dams, fishing platforms, and lifting nets at several exclusive fishing sites. Another clique fished in Walker Lake, using two nets set in the lake during April-May. Fishing equipment was owned by the cliques, and the catch usually was divided equally among its members. By the 1920s, the fishing cliques no longer existed, due to the declining numbers of fish and the death of clique members.

In spite of the passage of Nevada State laws in 1861 and 1871 outlawing Native American fishing practices (Johnson 1975:95, 129; Taylor n.d. Pt. II:15, 18), the Walker River Paiute continued to fish in traditional ways into the 20th century. These fishing efforts also provided the Paiute with an important manner of earning a living. Completion in 1881 of the Carson and Colorado Railroad to Hawthorne, allowed Paiute to ship large numbers of fish to communities in Nevada (Johnson 1975:70, 95; Taylor n.d. Pt. II:20). The April 14, 1881 celebration at Hawthorne of completion of the Carson and Colorado was marked by local Paiutes selling fish (Johnson 1975:69; Myrick 1962:172). Newspaper accounts from the early 1880s (summarized in Johnson 1975:70; and Taylor n.d. Pt. II:20, 21, 22, 23) note daily catches of 200 to 400 pounds of trout, worth $0.12-$0.15 per pound, with the Carson and Colorado Railroad obliged to transport the Paiute and fish they had caught for free.

The Paiute went to considerable lengths to protect their virtual monopoly on fishing in Walker Lake and the Walker River. During 1883-1885, the Paiute were destroying any non-Paiute water craft found on the lake (Taylor n.d. Pt. II:22, 23). In January 1892, the first report that trout had become scarce in Walker Lake appeared (Taylor n.d. Pt. II:25). Causes of the decline included diversion of water from the Walker River, preventing upstream spawning, lowing the lake level, and lessening water flow; pollution; and increasing alkalinity and salinity of Walker Lake (Speth 1969:228). By 1930, fish decline in Walker Lake was marked (Johnson 1975:133). In 1945, the Walker River Paiute noted that trout no longer were abundant (Johnson 1975:152). From 1953 on, cutthroat trout, primarily reared at the Verdi Fish Hatchery, were annually stocked in Walker Lake to keep its fishery viable (Taylor n.d. Part III:14).

2.4.3 Historic Mining

Hawthorne District

Tingley (1992:44) refers to the Lucky Boy Mining District, also called the Hawthorne, Pamlico, Powell Mountain, and Alum Creek Districts. Discovered in 1907, the district has produced silver, gold, lead, antimony, tungsten, molybdenum, uranium, barite, and gypsum. The district's history is profiled by Hill (1983:151-157), Lincoln (1982:144-146), Ross (1961:82), and Vanderburg (1988:85-89). During the 1870-1880s, the La Panta and Pamlico Mines produced gold and silver, valued at as much as one million dollars. A number of shafts, drifts, rises, and crosscuts were worked, and a 20-stamp mill operated at Pamlico. Following the 1880s, limited, sporadic operations took place, with both mines idle by the 1930s. In 1906, the Lucky Boy Mine was discovered. Soon, several shafts were sunk. At least one million dollars of gold, silver, and lead were produced. Production peaked in 1910-12, with smaller production peaks in 1915-1918, 1923-1928, and 1934-1935. A125-ton floatation mill was constructed in 1926. By the 1950s, the Lucky Boy was idle.

Mount Grant District

Tingley (1992:47-48) notes that this district has been assigned a number of names (i.e., Walker River, Desert, Deseret, Cat Creek, Walker Lake, East Walker, Mount Cory, Buckley, Mountain Grant, Walkers, and Baldwin). Discovered in 1865, and organized in 1866, its history is described by Lincoln (1982:143, 156-157), Ross (1961:83), and Vanderburg (1988:93-95). During the 1870s, the district was a minor producer of mainly gold and silver. During the early 1880s, the Cat Creek gold-copper deposits were discovered. Placer gold mining began at the Grant Mountain Gold Mine in 1906, and continued intermittently until the 1930s. During 1907-1909, development work occurred in the district, and some silver ore shipped. In 1911, a 5-stamp amalgamation and concentrating mill was operated at the Walker Lake Mine. From 1914 to the 1920s, a 2-stamp mill was active at the Mammoth property. During 1914 and 1916, gold ore was produced in the district, and copper ore in 1917 at the Northern Light property, which expanded its operations in 1919-1921. During the 1920s-1930s, most of the district was included within the boundaries of the Naval Ammunition Depot, and became inactive when access was restricted.

2.4.4 Historic Transportation

In June 1868, with the Central Pacific's arrival in Reno from California, railroads began their long domination of western Nevada (Myrick 1962). During February1869, ground was broken for the

Virginia & Truckee Railroad (V&T) at Virginia City (Myrick 1962:136-161; Wurm and Demoro 1983). On January 21, 1870, it was completed to Carson City. Construction at its Reno end began in mid-1871. By November 11, 1871, the V&T extended south from Reno to Steamboat Springs. On August 24, 1872, the Reno-Carson City portion was finished, and the railroad was operable from Reno to Virginia City. In December 1880, The Nevada-California-Oregon Railway (N-C-O) broke ground in Reno (Barry 1982; Myrick 1962:341-383). On October 2, 1882, in Long Valley, the Nevada-California-Oregon Railway began operations, ultimately reaching Alturas, California-Lakeview, Oregon in 1908-1912 . Also in 1880, construction began at Mound House on the Carson and Colorado Railroad (Due 1951, 1997; Hungerford 1956; Myrick 1962:166-209; Turner 1964).

Railroads, such as the Central Pacific, the Nevada-California-Oregon, the Virginia & Truckee, and the Carson & Colorado, profoundly changed the character of western and northern Nevada. Mechanized transport provided ease of access, especially in efforts to supply miners, cattlemen, and ranchers with the necessities and comforts of life (Hulse 1981:132). On the negative side, railroads, through excessive fees and their refusal to pay local taxes, retarded commercial development of the entire state. As a Nevada congressman in Washington observed, "Nevada is an orange which for ten years these railroad vampires have been sucking in silence . . . Their object seems to be to crush, not to develop, the industries of Nevada" (Hulse 1981:128).

Carson and Colorado Railroad

Due (1951; 1997:255-258, 266-268), Hungerford (1956), Myrick (1962:166-209), and Turner (1964) profile the history of the Carson and Colorado (C&C) Railroad. On May 10, 1880, as an offspring of the Virginia and Truckee Railroad, the C&C was incorporated to build a narrow gauge (3 foot) railroad south from Mound House to provide transport for mining districts located in west-central Nevada and adjacent eastern California. Construction began on May 31, 1880 at Mound House, with the grade following the north bank of the Carson River to Dayton. After crossing the Carson River at Dayton, the line proceeded east, south of the Carson River, to Fort Churchill, where it turned south to Wabuska in Mason Valley. From there it proceeded along the Walker River and the east shore of Walker Lake to Hawthorne.

Construction of the C&C by Euroamerican and Chinese laborers proceeded rapidly, in spite of strife over wages by the former. By the end of October 1880, grading was completed along the entire route from Mound House to Hawthorne. By December 18, 1880, the first 14 miles of track east from Mound House were laid. Despite a severe flood in the Dayton area at the beginning of February 1881, work proceeded, and the rails reached Walker Lake on March 1, 1881. On April 7, 1881, the line was completed to Hawthorne. A grand celebration was held a week later on April 14, 1881. Hawthorne became the junction point for shipping goods to Bodie. The railroad built facilities including shops (car repair, blacksmith shop, machine house, engine house), a freight and passenger depot, a water tank and derrick, ice house, coal loading dock, and a wye for turning locomotives (Turner 1964:13, map). Soon, most C&C railroad maintenance and operations were based at Hawthorne, which quickly grew.

In September 1881, construction of the C&C south from Hawthorne resumed, with regular service established as far as Belleville on January 1, 1882. Work also had been proceeding on a branch line to Candelaria. On February 28, 1882, the first train reached Candelaria, which became the new terminus of the C&C. During January 1882, work began to take the C&C over Montgomery Pass into California via 2.3 per cent grades, heavy curves through rock cuts, and a short tunnel. A year later, in January 1883, trains commenced operation to Benton, just inside California.

Construction subsequently swiftly proceeded down the east side of the Owens River Valley. By early July 1883, the line was at Hawley (Keeler) on the east shore of Owens Lake. On August 1, 1883, service to Hawley began. In August-November1890, a 7.3 mile spur south from Hawthorne to Cottonwood was constructed to procure wood needed to fuel C&C locomotives. Beginning in September 1900, C&C locomotives were converted from burning wood to coal. By August 1902, the Cottonwood line was abandoned, and its rails removed.

Construction of the C&C stimulated a number of mining operations located along its route, and various communities were established along the line. Focal points of activity along the railroad and adjacent areas included Candelaria, Aurora, Bodie, Luning, Soda Springs, Belleville, and Keeler, among others. During the 1880s and 1890s, the fortunes of the C&C waxed and waned with those of mining. Flash floods, sand and wind, snow blockages, and landslides hampered operations. Increasing concerns were voiced regarding further extension of the C&C south to link up with southern California railroad lines.

In March 1900, the C&C was purchased by the Southern Pacific. Spurred by the Tonopah Boom, the Southern Pacific began extensive maintenance efforts and improvements to former C&C facilities. Starting in October 1904, and continuing into 1905, the northern part of the line, from Mound House to Tonopah Junction, was converted to standard gauge. The remainder of the line was left in narrow gauge. Portions of the railroad grade also were realigned. During April-August 1905, the bottleneck at Mound House between the Virginia and Truckee Railroad and the former C&C was eliminated by construction of 28 miles of new rail line extending south from the Southern Pacific's main line at Hazen to Fort Churchill. Hawthorne was bypassed with a 15.8 mile cutoff, located about six miles east. This eliminated a bad curve, a steep grade, and 6.6 miles of track, which reduced running time nearly an hour. The last train to Hawthorne ran on August 18, 1905, much to the ire of its inhabitants.

On May 11, 1905, under the umbrella of the Southern Pacific, the Nevada and California Railway (N&C) took over the properties and operations of the C&C. During the first decade of the twentieth century, the N&C profited from the Tonopah/Goldfield Boom. Construction of the Los Angeles Aqueduct led to building a standard gauge line from Keeler to Mojave, between May 1908 and October 1910. In 1931, the U.S. Government built a railroad spur with extensive trackage west from Thorne on the N&C main line to the U. S. Navy Ammunition Depot at Hawthorne.

During the Depression of the 1930s, several portions of the N&C were abandoned. The Candelaria Branch ceased operation in 1931. In 1934, the portion of the line from Mound House to Fort Churchill was abandoned. During 1938,the Tonopah Junction-Benton segment over Montgomery Pass was abandoned. Subsequent abandonments included the section of the line from Benton to Laws (1943), and the portion from Tonopah Junction to Mina (1949). In April 1960, the 71 mile narrow gauge segment in the Owens River Valley ceased operations. Currently, the former N&C extends south from Hazen to Mina and is part of the Union Pacific Railroad network.

Early Stagecoach Efforts

Due (1999:223, Map) notes during the late 19th century, a stagecoach route extended between Hawthorne and Aurora. In 1882-1886, a daily stage made the seven hour, four miles-per-hour, 28 mile Aurora-Hawthorne run. The $1,066 mail contrast was held by O. J. Salisbury, of the Idaho Stage Company, Salt Lake City, Utah (Due 1999:243). By 1886-1890, the Aurora-Hawthorne run was made six days a week, under terms of a $1,680 mail contrast held by H. E. Wadsworth of San Francisco (Due 1999:249). During the same period, 1886-1890, C. A. Harmon of San Francisco had a $1,269 mail contract for a six day per week, 11 mile run from Hawthorne to Coryville, which took 2.5 hours, at an average speed of five miles per hour (Due 1999:246). Due (1999:236-237) notes Salisbury, Harmon, and Wadsworth worked for stage lines that were major nationwide bidders for mail contracts. Initially, Salisbury and Wadsworth were associated with S. C. Ramage of Washington, D. C.

Twentieth Century Establishment of Highways

Although roads were present in northern Nevada in the late 1800s, most were toll routes to mining areas (Beito and Beito 1998). Economic depression, and the decline of mining activity, led to a reduced use of these routes. During the early 1900s, the advent of automobile traffic in Nevada created a need for highway construction. Initially, this proceeded slowly, mostly due to a lack of funding. By the beginning of the 1920s, with the rapidly growing popularity of automotive travel, the need for good, paved roads increased. Aided by passage in 1921 of federal legislation that provided funds for designated interstate highways, with additional funds available for states with large federal land holdings such as Nevada, monies became available for highway construction. Highways receiving the most attention in northern/central Nevada were those following an east-west route to California (i.e., Highways 6, 40, and 50).

Principal among these were the Lincoln Highway, first proposed in 1913 (cf., Davies 2002; Franzwa and Petersen 2004; Jackson and Jackson 2003; Lincoln Highway Association 1995), and the Victory Highway, established in 1921-23 (cf., Brusca 2002a, 2002b, 2002c; Duncan 2001; Stewart 1953). Through central Nevada, the Lincoln Highway mainly followed the old Pony Express/Overland Stage Route from Ely to Eureka, through Austin, and on to Fallon (Franzwa and Petersen 2004:Chapters 2-5). The Victory Highway passed along the Humboldt River corridor through northern Nevada. Respectively designated as Routes 2 and 1 in Nevada during the early 1920s, construction and improvements to both highways accelerated. In 1925, the portion of the Lincoln Highway in Nevada was designated as U. S. Highway 50. The following year, the Victory Highway became U. S. Highway 40. Beginning in the mid/late-1950s, U.S. 40 was incorporated into the U.S. Interstate Highway system, and upgraded to freeway status as U.S. Interstate 80.

In 1921, Johnson (1975:131, 135, Picture at top of page) notes an initially narrow dirt road was blasted out of the cliffs on the west side of Walker Lake. It greatly improved travel to Hawthorne. Prior to completion of this road, auto traffic had to travel through the dunes on the lake's east side. During 1930, the highway along the west side of Walker Lake was reconstructed, becoming part of U. S. Highway 95 (Koval 1989:47).

2.4.5 Historic Settlement

Early settlement in Nevada was encouraged by three major pieces of federal legislation. These included *The Preemption Act of 1841,* which allowed settlers the right to purchase land cheaply upon settlement; *The Homestead Act of 1862,* which required five years settlement prior to ownership; and

The Desert Land Act of 1877, which allowed ownership of slightly larger tracts with improvements rather than settlement. Mostly as a result of the latter two pieces of legislation, Nevada became dotted with small, family-sized farms and ranches, extending the stereotypical 19th century rural landscape from the more fertile Midwest to the Pacific Ocean.

The 1860s were a time of rapid growth for Nevada. The Comstock's mineral wealth attracted many thousands of persons, most of whom were not miners. Towns, supply roads to connect them, and industries spawned by mining activities, sprang up all over the region (Paher 1970). In March 1861, President Buchanan signed the *Organic Act*, which created the Territory of Nevada. James Nye of New York was appointed the first territorial Governor. The Pony Express operated across Nevada only for one and a half years, ceasing operation just four days after the Pacific Telegraph was completed on October 24, 1861. On October 31, 1864, President Lincoln signed Nevada into the Union as a state. In the Walker Lake area, several communities historically have been focal points of settlement. Among these, Hawthorne and Babbitt are especially significant.

Hawthorne. Johnson (1975:69)l, Myrick (1962:171-172), and Paher (1970:433, 435) comment upon the founding of Hawthorne, designated as site CrNV-03-1994 (Pendleton et al. 1982:Table 4). During 1875, a trading post, Knapp's Landing, was established at the southern end of Walker Lake. Freight, hauled south by mule teams from Wadsworth on the Central Pacific Railroad, was taken to the north end of Walker Lake. From there, it was conveyed the south end of the lake by a small steamer to Knapp's Landing. There, local Paiutes leaded the freight onto wagons which continued the journey south,

During Summer 1880, H. M. Yerington, President of the Carson and Colorado (C&C) Railroad, decided Knapp's Landing at the south end of Walker Lake would be a suitable location for shop facilities and a depot from which freight would be shipped to Aurora and Bodie. Soon, a few tents were placed at the intersection of several freight roads leading to Bodie, Candelaria, and other localities. By Fall 1880, this settlement was called Millbrae. It soon was renamed for W. A. Hawthorn, contractor of a new wagon road from Bodie.

On April 7, 1881, the C&C was completed to Hawthorne. One week later, on April 14, a riotous celebration occurred, chronicled by Myrick (1962:171-172):

> April 14 was the big day for Hawthorne. Some 800 people, including Governor Kinkead, responded to the advertisements of the C&C and rode the free excursion to Hawthorn to buy town lots. A few passengers clambered aboard Locomotive No. 1, but the majority crowded themselves into or on the express car, four coaches, and

> twelve flatcars which made up the train. On arrival at Hawthorne, considerable confusion ensued. Humorous fellows began calling, "Hotel, Sir, carriage to Palace Hotel." "Twenty minutes for dinner." "This way to the What Cheer House." A few farsighted citizens had set up tent saloons with such names as Silver Palace, Bank Exchange and Big Bonanza. One small tent saloon glorified itself with the name, The Field in the Cloth of Gold. Welcome those liquids must have been at one bit a drink, for it was a very hot day and there was no shade. What little water was available had been hauled four miles to town and was too warm to quench thirst.
>
> Almost before the train was unloaded a professional gambler had a "rouge et noir" game under way. In spite of this, once the auctioneer got the program started, some 35 lots were sold in a three-hour period at prices ranging from $100 to $195. Considering that this was in the middle of the desert without a permanent habitation around, the effort was considered successful, and nobody minded when a few lots went for slightly less money. Newspapermen pronounced themselves ready to start four different newspapers, though none did. The Paiutes made money by selling fish, and in the excitement there was even talk of the possibility of a lynching. At three o'clock the auction was over, and fifteen minutes later the trainload of hot and weary passengers was homeward bound "with the exception of a few who had eaten too much (beer)."

Following this sendoff, Hawthorne quickly grew (Hulse 1969:132, 235, 1991:128; Paher 1970:435). On May 16, 1881, a post office opened (Carlson 1974:131; Chan 1973:128; Gamett and Paher 1983:74; Harris 1973:28). By the end of May, water connections were present on every street. At the start of Summer, 30 houses had been built. The C&C depot was finished in August. Soon, the C&C had built extensive facilities and a procession of freight wagons and stages came and went from Hawthorne. A water works and park were constructed. In March 1883, the *Walker Lake Bulletin* began publication. During July 1883, the Esmeralda County Seat was moved from Aurora to Hawthorne.

However, by the mid-1880s, the mining boom had ended and Hawthorne ceased to grow. Located at the center of a small mining region, Hawthorne was a commercial center for surrounding mines and ranches. Although during July 1883, Darius O. Mills derided the future of the C&C and the Hawthorne area as: "We built this line either 300 miles too long or 300 years too soon" (Hulse 1991:128; Myrick 1962:174). Nevertheless, Hawthorne did not suffer the total collapse and abandonment commonly characterizing other Nevada mining-based communities. By 1890, Hawthorne had 337 people, which increased to 436 in 1900 (Hulse 1991:128).

After 1902, with the Tonopah and Goldfield Booms, railroad traffic through Hawthorne greatly increased (Paher 1970:435). However, in 1905, the railroad's realignment by its new owner, the Southern Pacific Railroad, bypassed Hawthorne entirely (Chan 1973:128; Hulse 1991:334; Myrick

1962:181, 204; Paher 1970:435). The resultant economic decline subsequently led to movement of the Esmeralda County Seat from Hawthorne to Goldfield in 1907 (Myrick 1962:204; Paher 1970:435). However, between 1907 and 1910, new mining discoveries at Lucky Boy, Rawhide, and other localities led to creation of Mineral County in 1911, with Hawthorne as its county seat (Hulse 1991:129; Mack and Sawyer 1965:98; Myrick 1962:204-205; Paher 1970:435). In 1910, Hawthorne had 471 people (Koval 1989:47). A fire in 1911 destroyed the town's center (Koval 1989:47). Before, and during World War I, increased local mining activities made Hawthorne prosper again (Paher 1970:435).

By 1920, Hawthorne's population was about 250 people (Hulse 1991:334). After 1920, Hawthorne again declined (Chan 1973:128; Hulse 1991:334; Paher 1970:435). By 1926, it had fewer than 150 inhabitants and only a two-teacher school (Chan 1973:128; Paher 1970:437). On July 2, 1926, the community's doom seemed assured when a fire gutted Hawthorne (Paher 1970:437; described in detail by Chan 1973:127):

> Two square blocks of the town's business section were completely destroyed. The flames started at the Miller Hotel, and spread quickly to the Adams and Miller store, the Mineral County power system station, and the Knights of Pythias Hall. The town lacked a sufficient water supply to stem the blaze. Only by resorting to dynamite were Hawthorne's firemen able to contain the fire to the town's central district. Thus the county courthouse, a school building, and private homes in the town's surrounding residential sections were saved from being consumed. Total property damage was estimated at around $100,000. Yet only one of Hawthorne's merchants, Alva Miller, was insured - and only for $4,000.

Approximately one week later, on July 10, 1926, a far greater conflagration consumed the U. S. Naval Ammunition Depot at Lake Denmark, New Jersey. A lightening strike produced a three-day series of explosions and fires, which destroyed at least $43,000,000 of ammunition and facilities, killing 19 people, and injuring almost 200 others (Chan 1973:128-131; Paher 1970:437). In October 1926, a search for a new, more safely located facility chose Hawthorne. During 1927-1928, enabling legislation and funding for the Hawthorne Naval Ammunition Depot was passed by the U. S. Congress. In 1929, construction of the Hawthorne facility began, and it began operation in September 1930.

During construction of the depot, Hawthorne boomed (Koval 1989:47; Paher 1970:437). Many new businesses began, including a theater, and the *Hawthorne News* started publication. In 1930, Hawthorne's population was 757 (Koval 1989:47). After 1930, Hawthorne's economy was primarily tied to the depot. In the late 1930s, projects done or facilitated by the Works Progress

Administration (WPA) affected Hawthorne (Koval 1989:47). A volunteer fire department was organized during 1938-1939, sidewalks and curbs installed, and streets oiled. The town also began to benefit from increased automobile traffic through the area. Located on the main north-south highway between Reno-Carson City and Las Vegas, Hawthorne hosted increasing numbers of travelers and tourists passing through the town, and those who had come to fish in Walker Lake (Hulse 1969:236). By 1940, Hawthorne had 939 people, and Hawthorne:

> spreads out from one broad main street on a sunny plain in view of distant high ranges. It is the trade center of scattered ranch families and also the outfitting point of prospectors and miners who in 1939 were cheered by promising discoveries. Here as in every other town in Nevada - and especially along this route - every little restaurant, drinking-gambling club, and store has at least a few specimens of ore on display and the owners will talk for hours of the probable assay value of the different pieces.
>
> The presence of the naval depot has given a certain air of prosperity to the small town and facilities are in keeping with the number of visitors to the depot. From the main street small low buildings housing ammunition are visible, widely separated and far from habitations of any kind.
>
> Hawthorne is truly the West in its scorn for small change; a 35 cent breakfast will be given for 30 cents if the unfortunate traveler must complete his payment with five pennies.
>
> As elsewhere in the State, a school is one of the most impressive buildings - in this case a school for the lower grades. The low building of very modern design is up to date even to the Venetian shades at its windows. The townspeople love to tell of the young teacher who came here from the North where "fish"mean small mountain trout - and ordered half a dozen fish from Walker Lake for her biology lesson; nothing would hold the catch but the tank in which the fire company stores water for emergencies (Writers' Program of the Works Progress Administration in the State of Nevada 1940:219-220).

World War II brought profound changes to Hawthorne (Hulse 1991:334; Paher 1970:437). The Hawthorne Naval Ammunition Depot became one of the largest in the United States. Its facilities were greatly enlarged for ammunition production and storage. Expansion of the depot produced a severe acute housing shortage, exacerbated by a fire which destroyed much of downtown Hawthorne (Koval 1989:48; Molyneaux 1992:14, 16-17). Tent and trailer housing was built, and, starting in 1942, the community of Babbitt, located on the depot grounds, went from 50 to over 1,100 housing units within a year. Infrastructure expansion included a new sewer system and schools. During World War II, Hawthorne's population soared, and by 1944, over 4,300 military personnel and 2,860 civilians worked at the depot. At this time, the Hawthorne area had an estimated population in excess of 13,000.

After World War II, depot activity gradually declined (Hulse 1991:334; Paher 1970:437). In 1946, Hawthorne incorporated, but disincorporated 10 years later due to financial difficulties (Koval 1989:48). Depot personnel increased again during the Korean and Vietnam Wars. On September 28, 1954, following a Democratic Party pre-election rally and speech at Hawthorne, Patrick McCarran, one of Nevada's U. S. Senators for the preceding 22 years, exited Nevada politics and this mortal coil when he dropped dead from a heart attack (Edwards 1982:197-198; Ybarra 2004:746-751).

In 1977, control of the Hawthorne Ammunition Depot passed from the U. S. Navy to the U.S. Army (Hulse 1991:335; Paher 1970:437). During 1980, a private corporation took over the depot as a subcontractor for the Army. Starting in the 1980s and since, depot activities have been greatly reduced. The 1970s witnessed the establishment of business parks in Hawthorne (Koval 1989:49). For approximately the last 25 years, Hawthorne has steadily developed tourism as an economic base focused upon gambling and fishing and water sports at Walker Lake. By the late 1980s, Hawthorne's population was about 4,000.

Babbitt. Located within the current project area, the residential community of Babbitt was built by the U. S. Navy as "temporary" housing to provide accommodations for the influx of married civilian personnel and their families during World War II to the Hawthorn area (Elliott 1987:275; Hulse 1991:334; Koval 1989:28-29; Molyneaux 1992; Paher 1970:437). Beginning in 1941, Babbitt, named for Captain H. S. Babbitt, the second commander of the Hawthorne Naval Ammunition Depot, who had retired in May 1937, rapidly grew from an initial 50 housing units to over 1,100 (Figure 2.1). By 1944, 2,860 civilians workers at the Hawthorne Naval Ammunition Depot, and the population of Hawthorne/Babbitt was estimated at over 13,000 persons.

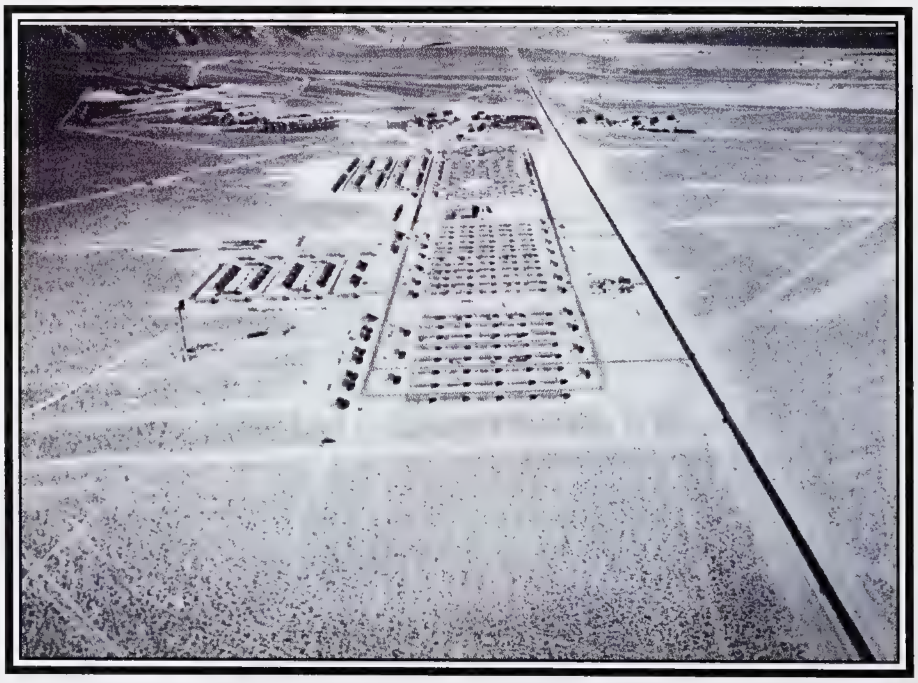


Figure 2.1 Aerial photo of Babbitt, c.1940s or 1950s (*Courtesy Mineral County Museum*).

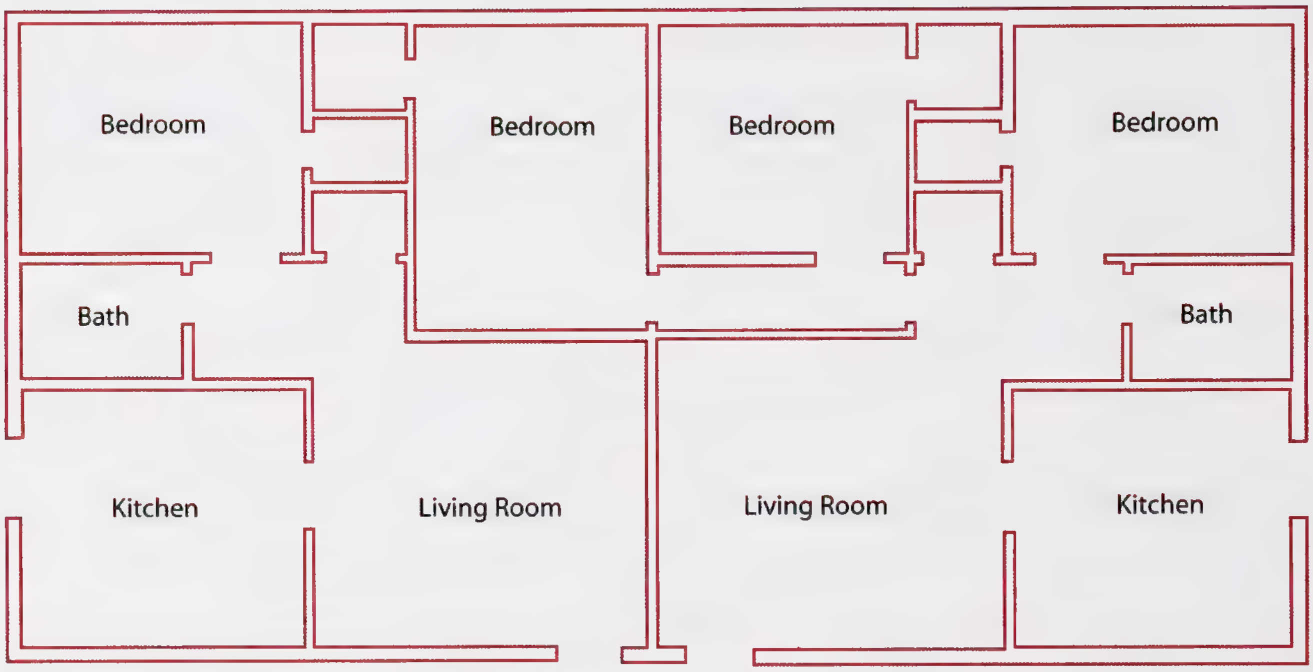
Babbitt's development is detailed by Koval (1989:28-29) and Molyneaux (1992). Between 1941 and 1945, 580 duplexes with two two-bedroom or one bedroom/three bedroom floor plans (Figure 2.2) were designed by the U.S. Navy Bureau of Yards and Docks, as part of the U.S. Navy's Low Cost Defense Housing Project. In February 1941, the first construction contract for $163,000 was awarded. Construction began in March, and was completed by Summer 1941. The second phase of construction began in April 1942, and was finished by December. The partially prefabricated units were rectangular, 27 by 55.5 foot, one-story, wood-framed, asbestos-sided structures on concrete foundations. They had asbestos-shingled gable roofs, casement windows, and single doors (Figure 2.3).

Streets were laid out in a grid pattern around a central community center. East-west avenues were named for U. S. Navy aircraft carriers, including the entire suite of pre-World II carriers, *Langley*, *Lexington*, *Saratoga*, *Ranger*, *Yorktown*, *Enterprise*, *Hornet*, *Wasp*, and the *Essex,* first of the World II ships. North-south streets were numbered from 10th to 30th.

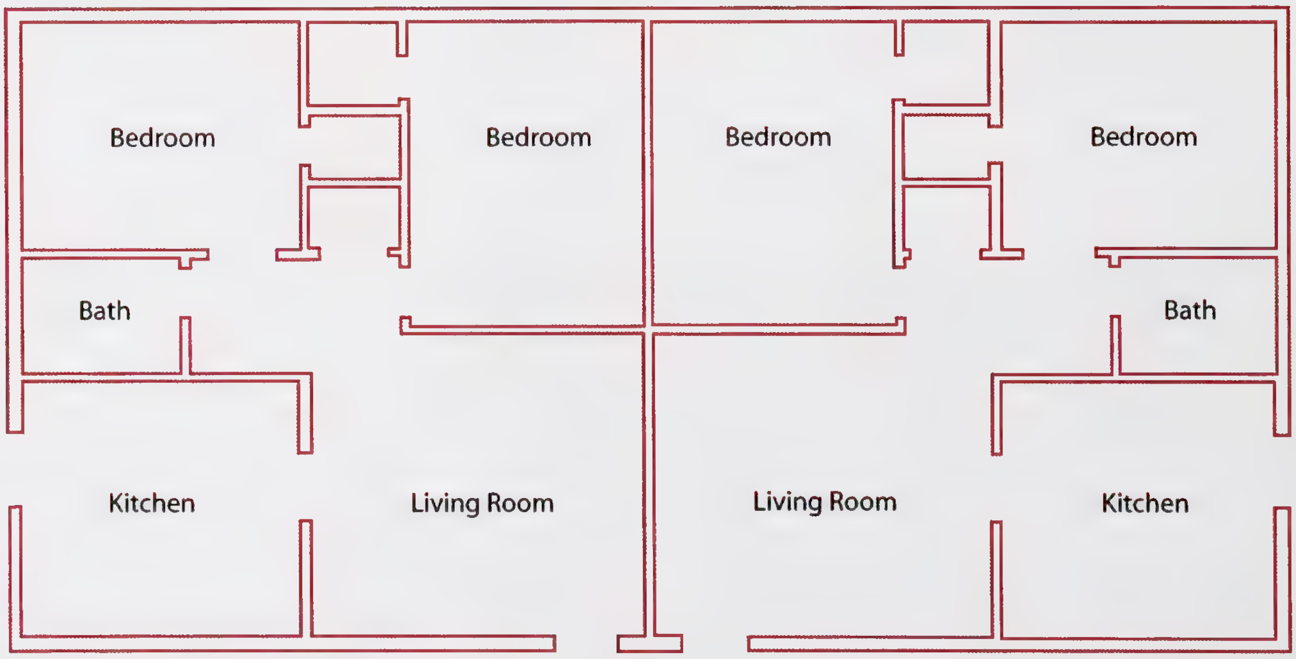
At least 12 community buildings were constructed. Centrally situated, these structures varied in size. Like the residential units, they were one-story, wood-framed, asbestos-sided buildings on concrete foundations, with gabled, asbestos-shingled roofs, store-front windows, and single doors. These housed a grocery store, post office (opened on October 1,1942: Gamett and Paher 1983:74; Harris 1973:28), drug store, soda fountain, bank, bowling alley, theater, nursery/day care, dance hall, community center, and dispensary.

Molyneaux (1992) charts the development of Babbitt between 1941 and 1987 (Figure 2.4). In 1941, initial construction of 25 duplexes occurred in the community's northwest corner. During 1942, Babbitt subsequently was expanded to 400 duplexes, followed in 1943 by 87 more, and in 1944-1945 by approximately another 100. In the early 1950s, Babbitt peaked, with 579 duplexes, and 100-80 single family residences. By 1960, there were 408 duplexes, and 49 single family units. This had dropped to 294 duplexes and 49 single family units in 1970. By 1976, further reduction had occurred (156 duplexes, 49 single family units). From 1979-1987, 145 duplexes were left.

Babbitt had a police force, and a community council. For the first half of its history, Babbitt was a racially-segregated community. African-American workers and their families lived in a "Colored section," located in the extreme southeast corner of Babbitt (Molyneaux 1992) (Figure 2.5). It was separated from the rest of the community by an undeveloped "buffer zone," which was approximately 150 feet wide, and located between 26th and 27th Streets. Shopping and business



1 & 3 Bedroom Duplex Floor Plan



2 Bedroom Duplex Floor Plan

Original Scale 1/8" = 1'0" (Reduced)

Figure 2.2 Floor Plans for Babbitt Duplexes.

activities generally occurred without obvious restrictions. However, recreational and social activities at the movie theater, bowling alley, and soda fountain were segregated.

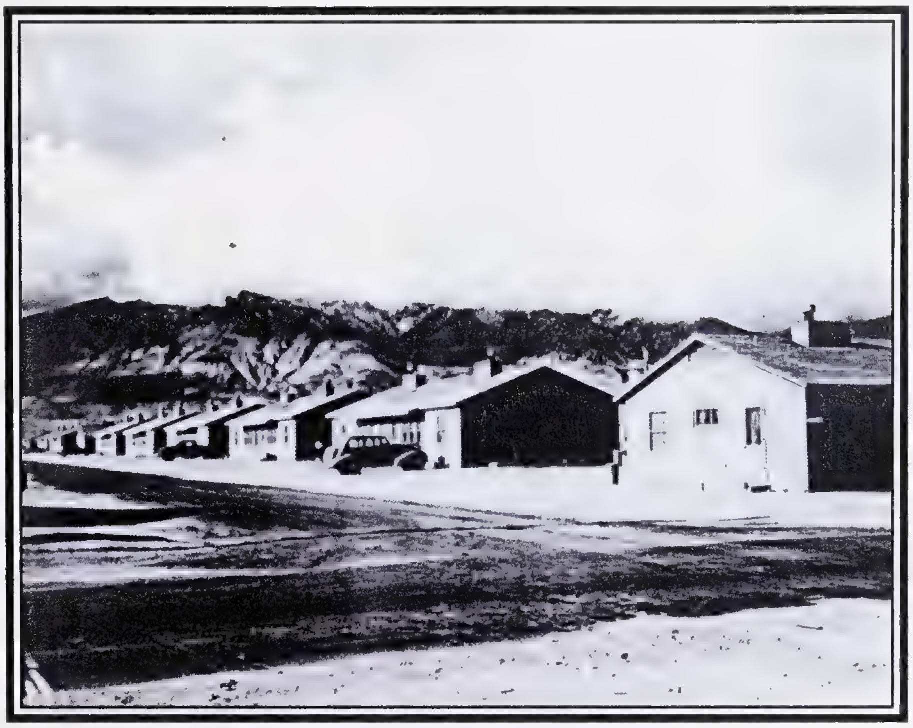


Figure 2.3 Babbitt, Nevada. Essex and 15th Streets, c. 1940s *(Courtesy Mineral County Museum).*

After World War II, some houses in Babbitt were left vacant. However, during the Korean War, many duplexes were renovated and additional housing was built. In 1950, Babbitt had 2,464 residents, and Hawthorne 1,861 (Koval 1989:48). Following the Korean War, Babbitt continued to be occupied. During 1952, monthly rents went from $25 to $45. A number of businesses in Babbitt rivaled those in Hawthorne. In the 1950s, a new school and sports facilities were built. Discrimination against African-Americans and segregation persisted, but began to change in the late 1950s and early 1960s with the rise of the nationwide Civil Rights Movement (Molyneaux 1992).

In 1960, the population of Hawthorne was 2,838, and that of Babbitt 2,159 (Koval 1989:49). During the 1960s and early 1970s, the Vietnam War necessitated continued occupancy of Babbitt. The 1970 census reported that 3,539 people lived in Hawthorne and 1,579 in Babbitt (Koval 1989:49). After the mid-1970s, Babbitt was increasingly reduced in size and still practiced "de facto" segregation (Molyneaux 1992) (Figure 2.6). By June 1987, its last residents had left. Many residential units were moved out, while others were torn down. In 1992, most of Babbitt's central community buildings were abandoned and in disrepair. Subsequently, almost all have been razed. Today, nothing remains of Babbitt except for a renovated school building and numerous concrete building foundations.

2.4.6 Military History

The history of the Hawthorne Naval Ammunition Depot (sequentially, the Army Ammunition Plant and then the Army Depot) is profiled in several sources (Chan 1973:127-134; Elliott 1987:272, 313; Hulse 1969:235-236, 242, 1991:333-335; Kolvet and Ford 2006:109-119; Koval 1989:35-41; Molyneaux 1992; Loomis 1993:5-8; Paher 1970:437).

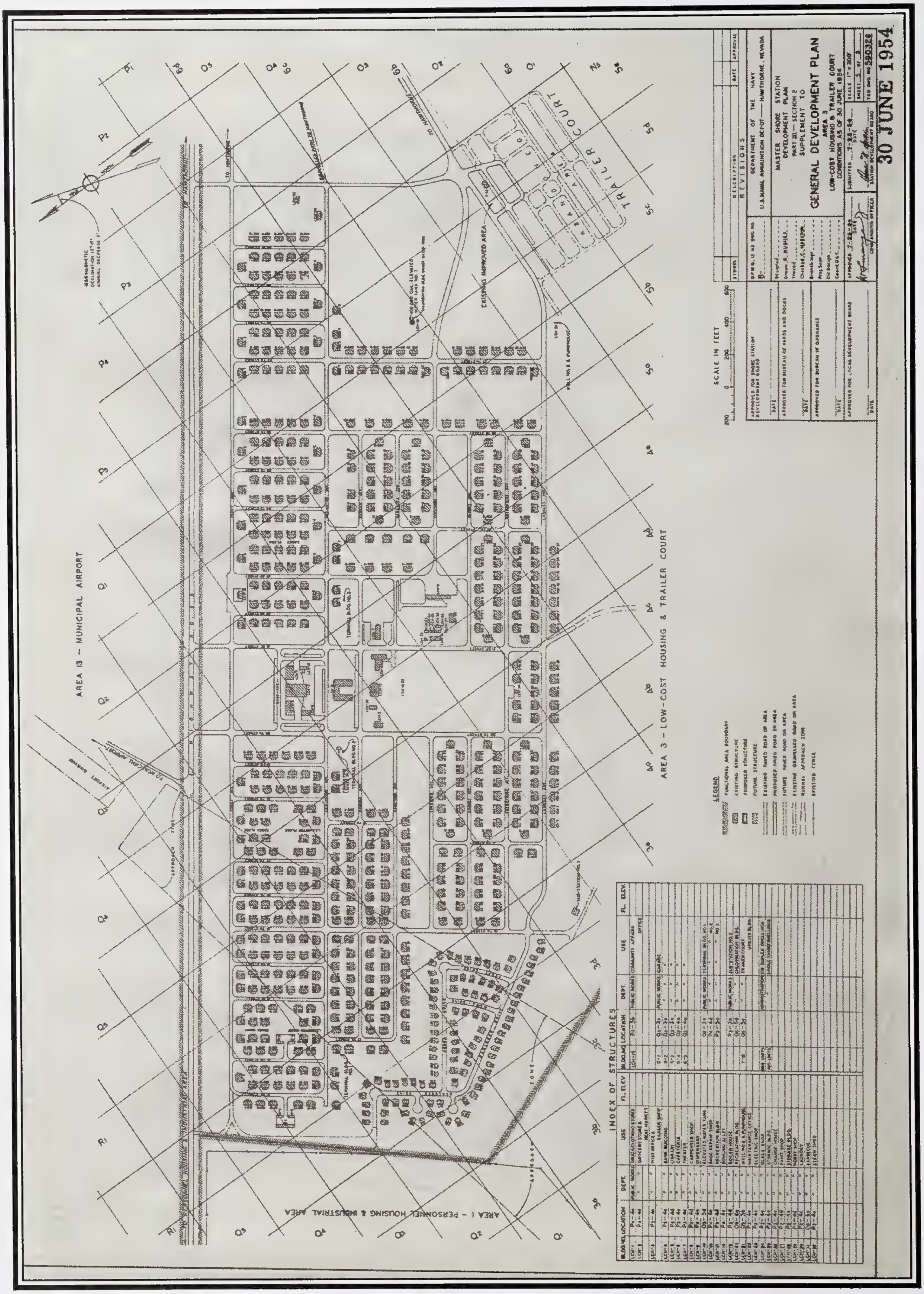

AREA 13 – MUNICIPAL AIRPORT
AREA 3 – LOW-COST HOUSING & TRAILER COURT
AREA 1 – PERSONNEL HOUSING & INDUSTRIAL AREA
TRAILER COURT
EXISTING IMPROVED AREA
INDEX OF STRUCTURES
LEGEND
SCALE IN FEET
REVISIONS
DEPARTMENT OF THE NAVY
U.S. NAVAL AMMUNITION DEPOT — HAWTHORNE, NEVADA
MASTER SHORE STATION DEVELOPMENT PLAN
GENERAL DEVELOPMENT PLAN
AREA 3
LOW-COST HOUSING & TRAILER COURT
30 JUNE 1954

Figure 2.4 Plan map of Babbitt, Nevada. *Babbitt, Nevada Historical Calendar 2007*, Mineral County Museum.

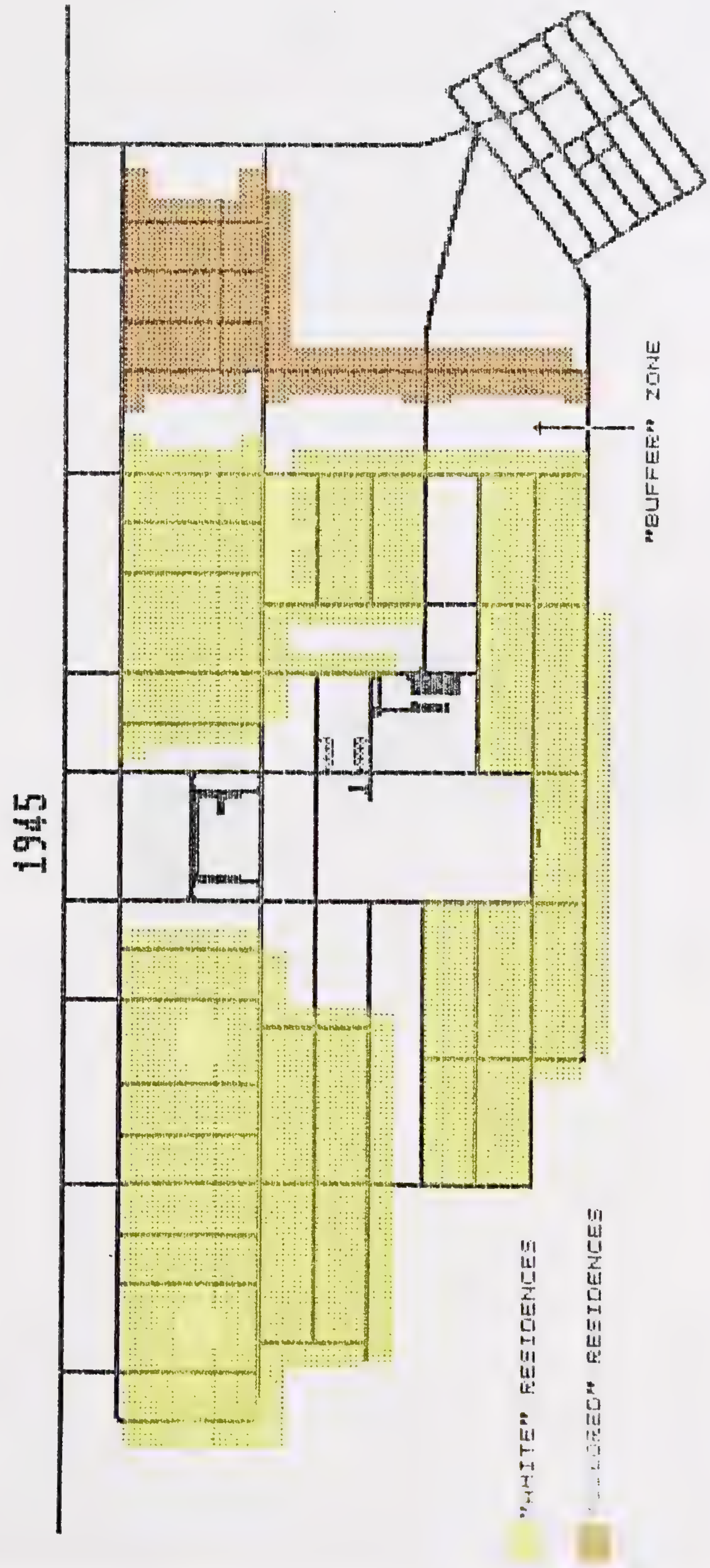


Figure 2.5 Babbitt "Colored Section" c. 1945 (Molyneaux 1992).

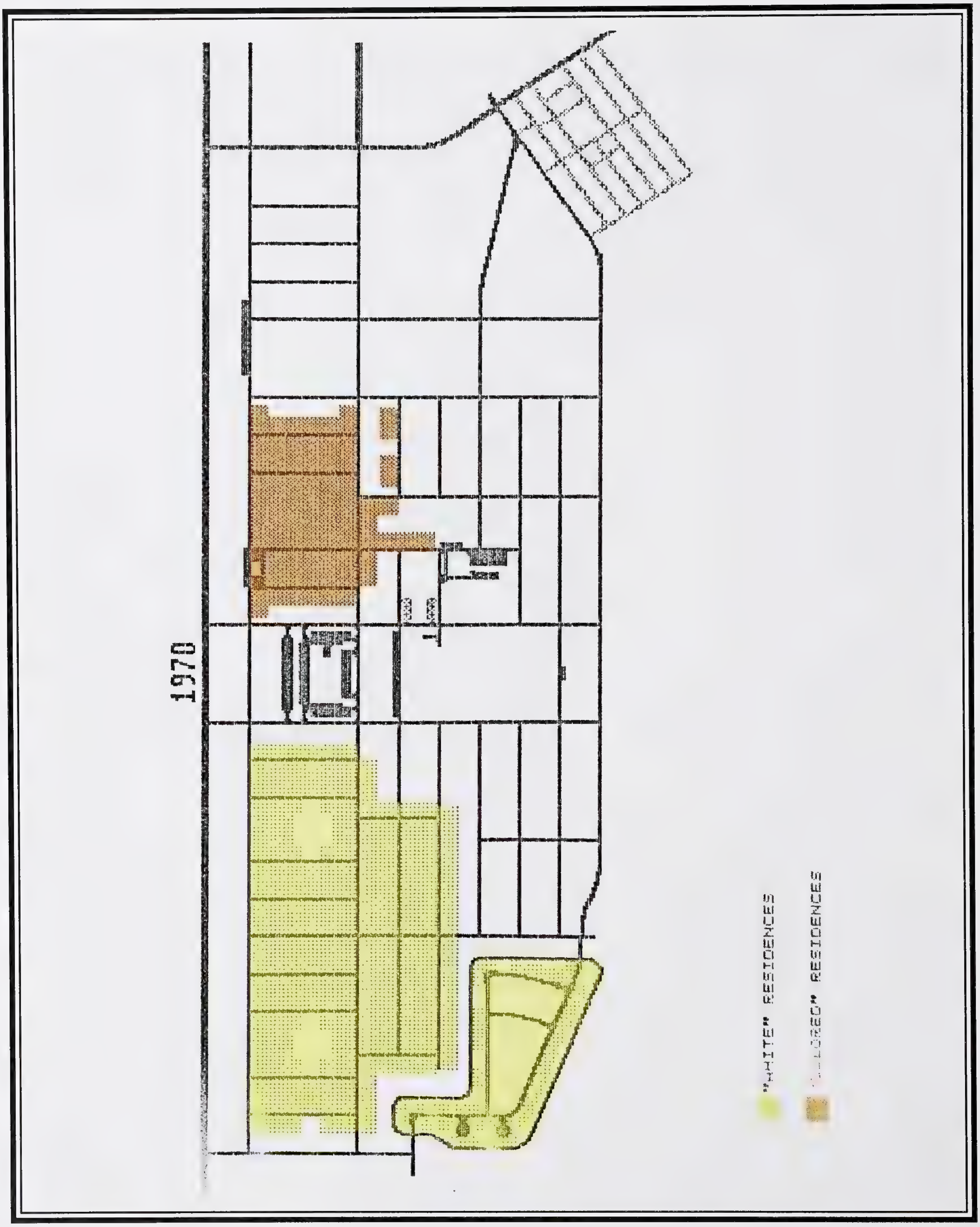


Figure 2.6 Babbitt Plan Demonstrating Persisting Racial Separation, c.1970 (Molyneaux 1992).

On July 10, 1926, an electrical storm at the U. S. Naval Ammunition Depot at Lake Denmark, New Jersey, detonated a magazine at the facility. This resulted in a series of explosions, which caused over 200 magazines containing TNT, dynamite, shells, torpedoes, and smokeless powder to blow up. On the evening of July 13, rain finally doused the fires and ended the explosions. The devastation was immense. All the buildings on the depot grounds were in ruins. Approximately $40 million in munitions blew up and about $3 million in buildings, facilities, and equipment were destroyed. Twenty one people were dead and over 170 injured. The explosions impacted the area within an approximate 30-mile radius from the depot, with the town of Dover, New Jersey, especially hard hit.

The Lake Denmark disaster soon led to a search for a safer location for the Navy's ammunition storage. Trasker Oddie, Nevada's junior U. S. Senator, who sat on the Senate's Committee on Naval Affairs, took a particular interest and began seeking support for Hawthorne, Nevada as an ammunition depot site. The U. S. Navy and President Calvin Coolidge soon agreed with Oddie. On October 27, 1926, Coolidge issued Executive Order 4531, authorizing withdrawal from settlement, location, sale, entry, and all other forms of appropriation, 197 square miles of Federal lands centered at the south end of Walker Lake in the vicinity of Hawthorne for exclusive use by the U.S. Navy for an ammunition depot.

Opposition came from U. S. Representative Harry Englebright of California who proposed several sites in Lassen County, California for the depot. During 1927, competing depot bills were introduced in the U. S. Senate and House of Representatives, both of which failed. An examination and comparison of the merits and drawbacks of the proposed depot sites in Nevada and California by the U. S. Navy, found in favor of the Hawthorne site. In early 1928, after intense, skillful lobbying by Oddie, the Senate and House passed a bill approving the Hawthorne site and appropriating $3.5 million for its construction and additional land acquisition. On May 29, 1928, the bill became law.

Ground breaking for the Hawthorne depot occurred on July 24, 1928. On June 26, 1929, a $1.1 million construction contract for the facility was awarded to the Mittry Brothers Construction Company of Los Angeles, California. A road and railroad spur network to service the depot was built first. This was followed by construction of facilities in the industrial area, residential structures, and the munitions magazines. Over 120 buildings were built. Construction of the depot was directed by its first commander, Carl H. Cotter, who set up his first headquarters in the Mineral County Courthouse Jury Room in Hawthorne. On September 15, 1930, The Hawthorne Naval

Ammunition Depot formally was commissioned and received its first munitions shipment a month later.

At its inception, the depot had 72 military personnel, including 48 Marine guards, and 90 civilian employees. The depot first operated as a storage facility for explosives and munitions. In 1932, the Cat Creek Dam was constructed to provide a more stable water supply and 5,200 additional acres were added to the depot. By 1935, the magazines were full. During 1935, the Mine Filling Plant began operating, initially with about 160 workers which by 1940, had dropped to 100. Starting in 1935, recommendations for enlarging production and storage facilities at the depot became increasingly voiced. Between June 1939 and June 1940, more magazines were built as part of pre-World War II U. S. Military expansion.

Upon the beginning of Franklin D. Roosevelt's presidency in March 1933, and implementation of various New Deal programs, including the Civilian Conservation Corps (CCC), the Hawthorne community and U. S. Navy lobbied for establishment of a CCC camp at the Hawthorne Naval Ammunition Depot (Kolvet and Ford 2006:109-119). Late in 1933, the first CCC camp was opened at the depot, followed by a second camp in 1935. A transient camp also was established in Cottonwood Canyon at the Lucky Boy Mine facility. CCC activities at Hawthorne received particular, unconditional attention from Nevada's junior U. S. Senator, Patrick McCarran. Hawthorne-based CCC personnel built and improved roads, including the Cottonwood Canyon Road over Mount Grant; constructed Rose Creek Reservoir, which finally solved the depot's water supply problems; planted trees on and off depot grounds; installed fuel and oil tanks, built a telephone line; constructed an emergency landing field; and renovated some of the ammunition magazines. Living conditions in the Hawthorne CCC camps generally were good and CCC workers enjoyed good relations with Hawthorne's residents. In July 1938, the U. S. Navy's involvement in the CCC program was formally suspended by President Roosevelt, and the Hawthorne camps were closed down. Until Summer 1941, the Hawthorne facilities were sporadically used by the CCC.

The 46-acre emergency landing field built by the CCC (Kolvet and Ford 2006:114) in the 1930s is most likely the same as the current Hawthorne Municipal Airport. The emergency landing strips were completed for the Hawthorne Naval Ammunition Depot by 1936, and transferred to Mineral County for use as municipal airport in 1963 (Steven Gustafson, Hawthorne Utilities, 2007; personal communication). Two landings strips were located on the airfield when the transfer was complete, and renovations to the runways have been conducted as recently as 2006, when the main runway was lengthened.

After the Japanese attack on December 7, 1941, at Pearl Harbor, the Hawthorne Naval Ammunition Depot's role took on new significance, since it was the main U. S. Naval ammunition storage facility and plant located on the U. S. West Coast. Over 2,000 Naval personnel were transferred to the depot, and thousands of civilian workers came to the facility. Approximately 2,000 construction workers built two additional mine plants, thousands of new magazines and storage buildings, and housing and support facilities for civilian workers and their families, which became the town of Babbitt. Until the war's end, the construction workers were housed in the two former CCC camps, renamed Camp Jumbo.

During World War II, the depot became the largest U. S. staging area for munitions. Over 200 miles of railroad tracks and 500 miles of paved roads led to over 3,000 magazines. By the end of the war, over 5,000 rail cars per month transported munitions from the depot. In 1944, railroad freight charges for depot munitions shipments from Thorne on the Southern Pacific Railroad east of the facility totaled about $91 million. Production facilities at the depot turned out bombs, mines, and rockets. Mines and rockets were tested at the facility. By December 1944, there were 2,620 civilian workers, and 2,495 military personnel, including 600 Marine guards, at the depot. During August 1945, the depot's work force reached its peak, with 3,889 military and 1,736 civilian workers, totaling 5,625.

After World War II, the Hawthorne Naval Ammunition Depot continued to play an important role in the production and storage of munitions for the U. S. Navy. During the late 1940s, depot activities declined. By 1948, the Naval Ammunition Depot occupied 104 square miles of its 327 square mile total area. Following World War II, the depot destroyed thousands of tons of surplus munitions, a task which has continued until the present. The Korean War in 1950-1953 increased depot activity and personnel. This continued into the 1960s and early 1970s with the advent of the Vietnam War. During this period, the depot provided storage of conventional munitions for the Pacific Theater. In one year during the Vietnam War, almost 400,000 250 pound and 500 pound bombs were produced at the depot. By this time, depot facilities included several thousand structures on 236 square miles.

After the Vietnam War, major changes occurred at the depot. In 1977, the Hawthorne Naval Ammunition Depot was transferred from the U. S. Navy to the U. S. Army, and was renamed the Hawthorne Army Ammunition Plant. During 1980, when plant activities were transferred to the Day and Zimmermann/Basal Corporation, the plant became a government-owned, private contractor-operated facility. The plant produced a range of munitions from small arms ammunition to 2,000 pound bombs during the 1991 Persian Gulf War for all the U. S. Military branches. By 1993-1996, the facility still had nearly 2,000 magazines, that could hold up to 500,000 to 600,000 tons of munitions.

In 1994, the plant was renamed the Hawthorne Army Depot. During 1998-1999, the facility was also used to destroy artillery shells containing noxious chemicals. Although included on the 2005 Base Realignment and Closure List, the Hawthorne Army Depot subsequently was dropped from the list, and will continue storage, production, maintenance, testing, and deactivation of munitions. During the last two decades, excess lands at the facility have been turned over to the U. S. Bureau of Land Management, and to the City of Hawthorne, Nevada.

2.5 HISTORIC RESEARCH THEMES AND QUESTIONS

Historic research themes, domains, questions, chronological periods, geographic areas, and property types applicable to the current project area and region (i.e., western Nevada) are summarized and discussed by Bernstein and James (1989), Delacorte et al. (1994,1995), Hardesty (1982a, 1982b, 1986), and White et al. (1991), among others. The following historic research themes generally correspond to Hardesty's (1982b) thematic periods. Discussed are historic themes and associated research questions deemed applicable to the current project area. Among these ***specific*** historic themes are *Transportation*, *Settlement*, and *The Military*. As with the prehistoric research themes, they direct inventory efforts, and play a critical role in evaluating site significance. All the ***specific*** historic research themes are associated with ***general*** historic research themes, consideration of which is critical to pursuit of the specific themes. The ***general*** historic research themes include *Chronology*, and *Living Conditions*.

2.5.1 Chronology

Placing the residue of human behavior in chronological perspective is a fundamental concern of archaeology. A wealth of time-sensitive artifacts are available to the historic archaeologist. For example, the evolution of manufacturing techniques for tin cans and bottles, and makers' marks, enables the dating of refuse associated with historic sites within fairly narrow time ranges -- sometimes within a few years. Coins, buttons, nails, domestic items, and other artifacts also help bracket the time period(s) represented in an historic site. Archival research can provide exact dates for certain events characterizing an historic property (e.g., transfer of title to land, construction of facilities), as well as delineating precise locations of structures, fence lines, roads, water courses, and property boundaries at specific points in time (e.g., GLO plat maps). Research objectives concerning chronology include:

- Determination of when settlements, homesteads and other habitations, mining complexes, roads, military/industrial facilities, and transportation features were established and occupied.
- Delineation of particular time ranges for development of occupational, economic, social, and cultural activities, and reuse or adaptation to new activities.
- Development of associations and time ranges for existing or developing settlements, mining complexes, transportation corridors, and the like; and determining the spatial/temporal parameters of associated primary/secondary habitations or settlement areas.

2.5.2 Living Conditions

Information on living conditions can contribute to historical understanding of the project area in two ways. First, they characterize domestic arrangements and standards of living for particular historical periods (the synchronic view). They also provide insight into processes by which small settlements of the first Euroamericans in the area, represented by isolated homesteads, trading posts, and the like, were economically, socially, and culturally linked to other areas, and increased in size, permanence, and standard of living (the diachronic view). Research objectives concerning historic living conditions include:

- Observation of changes in size, placement, and construction techniques used for habitations, businesses, outbuildings, infrastructure features, and other structures.
- Noting the types/quantities/diversity of artifacts associated with domestic activities.
- Determining the degree of access to locally obtained goods and services, including fresh foods.
- Determining the degree of access to non-local commodities, including luxury and exotic goods.
- Describing changes in the standard of living; for example, the quality or quantity of domestic furnishings characterizing particular time periods.

2.5.3 Transportation

Currently, the project area is located immediately adjacent to U.S. Highway 95. In addition to that main transportation artery, a number of other primary, secondary and tertiary roads have served the communities of Hawthorne and Babbitt, the Naval Ammunition Depot, historic and modern mining operations, and ranches, farms, and residences located in the general area. Since 1881, the Walker Lake region also has been served by the (sequentially) Carson and Colorado, Southern Pacific, Union Pacific Railroad, located several miles east of the current project area. In addition, an extensive network of railroad spurs, and secondary and tertiary roads have been associated with the ammunition depot.

Evolution and development of this transportation network has been critical to historic settlement, mining, ranching/agriculture, and military activities in the region. Many of these transportation features follow early routes established in the Walker Lake area and environs. In addition to roads, and the railroad right-of-way, historic resources associated with the theme of transportation can include trails, infrastructural features such as utility lines, and access road corridors supporting these utility features. Since the 1880s, deposition of industrial and domestic refuse along these routes has continued to the present day, creating another historic property type associated with transportation and the routes themselves, trash scatters.

Almost by definition, cultural resources associated with historic transportation and communication are linear features/corridors, notoriously difficult to describe and evaluate. These resources may include trail, road, railroad, and utility line corridors. Edaburn (1982) details approaches to archaeological-based studies of railroads, focusing upon the description and evaluation of railroad grade segments. With respect to roads, relevant examples of contextual histories include Byrd (1992), who profiles development between 1840 and 1940 of roads and trails in the Tahoe National Forest. In addition, Howard (1998) details the nineteenth century evolution of the first roads across the Sierra Nevada into California. These studies have a regionally-based perspective. They relate road development to early exploration; subsequent emigration to California; economic development and settlement of the region; governmental involvement with roads on a local, state, and national level; and the influence of other transportation systems such as railroads, upon road development and use.

Hardesty and Little (2000:79-86) detail factors used to determine the significance of historic linear features and sites, including portage trails, water systems, logging railroads, and early roads. They note development of an historic context for these transportation features is facilitated by focusing upon the sociotechnic system of which transportation and communication are a part. This often involves definition of transportation corridors, composed of components associated with particular historic property types. These include construction-related properties (i.e., survey camps, construction camps), industrial properties (i.e., those associated with engineering and supply), operational and maintenance properties (i.e., those associated with use of the corridor), and miscellaneous properties. This sociotechnic-based transportation corridor system has thematic, chronological, and geographic dimensions.

Using the historic Henness Pass Road through the north-central Sierra Nevada as an example, Hardesty and Little (2000:92-96) note its historic context is associated with the themes of overland emigration to California, and mining (i.e., the California Gold Rush and the Comstock Lode). Important historic property types which may be associated with the road include caches, graves, emigrant camps, way stations, and engineering features. Among attendant research issues are the evolution of American consumerism and consumption, demography, social structure (i.e., status/class, gender, ethnicity), technology/engineering, the evolution of transportation, the evolution of regional settlement systems, capitalization, and so forth. Hardesty and Little (2000:96) note trails and roads often have long histories, and consequently can represent multiple time periods, historic themes, geographic boundaries, and property types. Their physical characteristics may change through time as a consequence of new uses, and the evolution of transportation technology (i.e., the change from horse-drawn to motor-powered transport).

Myhrer (1993) develops a regional historic transportation systems model for the Salt Lake City to Los Angeles transportation corridor in southern Nevada. Evolution of this major transportation corridor included initial exploration, wagon roads, a railroad, and several iterations of motor highways. Myhrer argues the developmental trajectory of a transportation corridor usually is composed of an exploration phase, a construction phase, a use/maintenance phase, and an abandonment/reuse phase. Critical factors in a transportation corridor's development include its purpose/function, the means of financing its construction and maintenance, and sources of supplies and labor for construction and subsequent maintenance. Questions of particular archaeological concern relevant to study of historic transportation corridors include those associated with the historic themes of ethnicity, demography, technology, economics, and social structure.

Reno et al. (1997) examine a portion of the Nevada-California-Oregon (NCO) Railroad grade in Honey Lake Valley. A portion of the grade was trenched to reveal how it was constructed. Mackey et al. (2000:5.2-10 to 5.2-18) consider seven isolated segments of the Truckee Meadows to Honey Lake Road in the vicinity of Lemmon Valley. These are systematically described. Mackey et al. (2000:5.2-21, Table 5.2-1; 5.4-4, Table 5.4-1) use Bowyer et al.'s (1997) feature systems typology of roadway and railway feature systems and associated feature types and artifacts.

A number of historic settlements are associated with the development of the transportation network in the Walker Lake area. Evolution of the area's transportation network has produced various historic cultural resources including trail, road, and railroad rights-of-ways, conveyance structures, associated utility lines, ancillary right-of-way and maintenance structures, settlements and habitation sites, and associated refuse scatters.

The data requirements of the research domain of transportation and communication are largely linked to objects and features (linear and otherwise), associated with the transportation and communication functional classifications. The presence of wagon parts, road grades, railroad spikes, loading platforms, telegraph wire, and so forth, constitute transportation and communication-related data. Integrity is a major concern. Telegraph wire and railroad rails, ties, and spikes frequently were recycled or collected. Unpaved roads can be modified through subsequent human actions and natural forces (e.g., they can be impacted by dirt bikes, four wheel drive vehicles, mining operations, or natural erosion). Without supportive data in the form of historic maps or clearly associated features such as peripheral trash scatters, their temporal affiliation remains highly speculative. The importance of transportation and communication as a research domain requires maximum information be extracted from frequently ephemeral data.

- What is the historic developmental trajectory of the transportation network? In particular, how did the trail/road and railroad network develop and what is/are its archaeological and geographic parameters?
- What types off historic structures/features are associated with the transportation network?
- How did historic/modern land use condition/alter development of historic road/railroad corridors and infrastructure elements in the general vicinity of the project area?
- What is the nature of refuse scatters associated with historic roads/railroads? What type are they? What are their attributes and patterning?
- How does development of historic transportation facilities and corridors in the project area and environs compare/contrast with development of historic regional transportation facilities and corridors?
- Are any of the historic trails and routes used by emigrants and/or transportation companies still in use?
- Do any roads or former railroad corridors have associated historic artifacts dating from earlier periods of emigration, mining, ranching/agriculture, settlement, and the like?
- Is any evidence of early communication networks, such as telephone or telegraph pole lines, still present?
- Is there archaeological evidence of facilities connected with construction of the transportation network? If so, what forms does this take?

2.5.4 Settlement

During the 1850s and 1860s, The Walker Lake area was initially settled by Euroamericans. In 1881, with the advent of the Carson and Colorado Railroad, settlement of the region was greatly expanded, initially focused upon the town of Hawthorne. During World II, marked population expansion in the area associated with activities at the Naval Ammunition Depot led to construction of on-base housing including the community of Babbitt.

Historic settlement in this area principally has resulted from, and been influenced by, the interrelated development of transportation, mining, and the establishment and operation of the ammunition depot. Communities and habitation sites present in this area provide an opportunity to examine social relations, lifestyles, living conditions, ideologies, and cultures, both as unique historical epiphenomena and as examples for comparative purposes (Hardesty 2002). Suggested areas of investigation, should the opportunity present itself, include the dynamics of power relations, changing economic and financial networks, the economic relationship between local and global systems ("globalization" according to Hardesty 2002:96), development of military landscapes and use of space, and adaptation to local conditions.

Hardesty and Little (2000:142-146) observe that town sites are examples of large-scale historic sites. With respect to social formations, towns can be local or regional communities, satellites, or marginal neighborhoods. Town sites often have neighborhoods defined by ethnicity, class, and/or occupation. Viewed from a community perspective, a town can be studied through use of historical ethnography. This often can be directly tied to the archaeological record of historic households comprising the town. Towns frequently possess particular cultural meanings. Thus town landscapes can be regarded as material expressions of culture. A community's changing roles as a cultural center can be examined. Their function(s) as focal points within political economies, and as material expressions of ideology, also can be studied. Company towns are primary examples of the latter, since they generally are patterned by corporate ideology, and are expressions of cultures of power and dominance, expressed as company culture, with respect to landscapes, layout, and architecture.

Mackay et al. (1997:2,3-1 to 2.3-107, 2000:6.2-1 to 6.2-92, 6.3-1 to 6.3-24) discuss archaeological investigations at the Termo townsite, CA-LAS-1292/H, mainly occupied from c. 1900 to 1937. Their 1997 efforts are principally focused upon site layout, features, artifact classes, and chronology. Artifacts are analyzed with respect to Van Wormer's (1991) notions of artifact functional patterning, and Pred's (1970) and Riordan and Adams's (1985) model of "Commodity Access Flow," with somewhat unsatisfactory results. In the 2000 study, detailed description of features and associated artifacts is stressed. This analysis forms the basis of a subsequent interpretative discussion of Termo, integrating archival and artifactual data. Emphasized topics include the use of space, activities conducted at Termo, population composition, and availability of goods and consumer choice. Emphasis in the latter topic is upon accessible supply sources and networks, changes in supply sources, goods available through supply centers, and routine purchases manifested by diversity, buying in bulk, and choice of products and brands. Termo's survival through time and its function as a rural service market center conclude the discussion.

Settlement in the region surrounding the project area has produced various historic cultural resources. Among these are community and habitation sites, structures, features, and refuse scatters. Data requirements associated with investigation of settlements address both spatial and temporal dimensions and patterns of urbanization. Important patterns identified from documentary, archaeological, and landscape data include social and economic indicators of residential, industrial, commercial, and transportation land use. Chronology is a critical factor for monitoring change, and community development/evolution. Data relevant to settlement studies often overlaps concerns associated with other research domains and issues, such as mining, ranching/agriculture, and transportation/communication. The overall perspective of this research domain transcends individual sites, seeking patterns characterizing larger settlement nodes, and regionally-based contexts.

- What types of historic structures occur? What sorts of historic structural remains occur?
- What is the patterning of historic settlement in the project area and environs with respect to location, community layout, and so forth?
- When did settlement take place, and what are the temporal parameters of its principal events/trends?
- What are the principal settlement trends/events, and how are these expressed in the archaeological record?
- Are refuse scatters associated with historic settlement properties? What type are they? What are their attributes and patterning?
- How does historic settlement correspond with the development/location of historic infrastructure and transportation/communication features?
- How does historic settlement correlate with mining and ranching/agricultural activities?

2.5.5 The Military

Since 1930, the Hawthorne Naval Ammunition Depot has been a dominant feature of the physical and cultural landscape of the project area and its vicinity. Located on a vast tract of land, development at this facility has included administrative and munitions production facilities, residential areas, infrastructure (a road and railroad network, utility lines and facilities), an airport, and extensive munitions storage facilities. The community of Babbitt, which existed from 1941 to 1987, provided housing for civilian workers at the depot.

Cleland et al. (1984) present a management plan for the Hawthorne Army Ammunition Plant (formerly the Hawthorne Naval Ammunition Depot). Although mainly focused upon prehistoric cultural resources, several historic themes and associated cultural properties are identified. These include *Transportation* (railroads, a siding, a toll road, pipelines), *Mining* (mining complexes, a mill, prospects), *Urban* (towns, features, a brick kiln, a landing), *Farming-Ranching* (homesteads, cabins, a barn, a corral, an unidentified structure), and *Miscellaneous* (a CCC camp, a dam). The recommended management plan includes a general archaeological survey program, conduction of project-specific surveys until the general survey is completed, and site preservation through avoidance whenever possible. A two- to three-year phased survey program is recommended. It is proposed this should include judgmental intensive surveys of relatively undisturbed areas of the depot, and stratified, random surveys focused upon previous land use and settlement patterns.

Koval's (1989) *National Register Nomination* for the Hawthorne Naval Ammunition Depot/Army Ammunition Depot notes that the periods of significance for the facility include "Between the Wars (1919-1939)," and "The National Defense Program of World War II (1940-1945)." The facility is seen as possessing national, state, and local significance, for the role it has played in the military history of the United States and the State of Nevada, because it has a unique landscape and since it contains the best assemblage of early 20th century military cultural resources in Nevada. The former community of Babbitt is one of four different portions of the depot. In addition to the Babbitt Housing Area, these include the Personnel and Industrial Area, the Production Area, and the Other part of the depot.

The architectural style characterizing Babbitt and other World War II Era facilities at the depot is mass-produced, modest, and utilitarian. As of 1989, all of Babbitt's duplexes had been declared surplus. At that time, most either had been razed, or moved to new, off-depot sites. In 1989, 10 of the original 12 community buildings remained in Babbitt. World War II Era structures included the bowling alley, post office, union hall, thrift store, community center, library, rock shop, recreation hall, and preschool. Only the bowling alley was still in use. The Babbitt Elementary School was a post-World War II structure.

Molyneaux (1992:8-15) summarizes the U. S. Navy's World War Era Low-Cost Defense Housing Program. In the case of Babbitt, this was entirely initiated by the U. S. Navy. Noteworthy contemporary private-sector initiated defense housing construction on the West Coast occurred in San Diego, California (Killory 1993; Taschner 1982), and Richmond, California (Butt c. 2007). Beginning in 1940, expansion of the Hawthorne Naval Ammunition Depot's civilian and military work force quickly produced a housing crisis. Similar situations occurred at other localities across the United States, and the need for low-cost housing quickly became acute. As Molyneaux (1992:8-9) notes:

> In response to the growing war emergency, the Navy, in conjunction with the United States Housing Authority, embarked on an overall program to provide low-cost, defense housing for its various installations. Under Public Act 671, approved June 28, 1940, the Housing Authority began a program to "construct public housing at or near military or naval posts for married enlisted men and for employees of the Navy and the War Departments who were assigned to duty at naval or military posts . . . Funding and technical assistance was provided by the Housing Authority, but construction was carried out by the affected services. And, while the Housing Authority retained title to the completed projects, the Navy and War departments operated their own housing complexes with little or no intervention from any other agencies.

Construction of Babbitt was financed under the Navy Low-Cost Defense Housing Program, with money directly allocated to the Navy Department. The U. S Navy assigned responsibility for implementation of the program to its Bureau of Yards and Docks. By January 1, 1941, with approximately $57 million appropriated for defense housing, the U. S. Navy began construction of almost 19,000 low-cost housing units under provisions of Public Act 781 (September 9, 1940), and the Lanham Act (October 14, 1940) at a number of naval facilities, including the Hawthorne Depot. At the end of January 1941, the opening of bids for construction of the first phase of housing units was announced. Standardized plans, drawn by the San Francisco architectural firm of Blanchard and Maher had been approved by the Navy's Bureau of Yards and Docks. On February 5, 1941, a lump-sum contract of $163,000 for construction of the first 50-unit phase of Babbitt housing was awarded by the U. S. Navy to the William Neil Company of Los Angeles, California. Construction began in March 1941, and was finished by June. Subsequent construction of housing units in 1942-1945, and during the Korean War eventually produced almost 600 housing units in Babbitt.

Research questions associated with the former community of Babbitt include:

- What remains of Babbitt as regards extant structures (duplexes, community buildings), infrastructure (streets/roads, utilities), features (walls, fences), and so forth?
- What is the overall community plan of Babbitt?
- What types of remains of former structures (i.e., foundations, yards, sidewalks) occur in Babbitt?
- What purpose(s) is the former site of Babbitt currently being used for?

3.0 PRIOR RESEARCH, EXPECTATIONS, AND FIELD METHODS

3.1 PRIOR RESEARCH

As part of the pre-field preparations, a literature search was conducted on July 19, 2007 by Danielle Risse, Field Supervisor, Kautz Environmental Consultants, Inc. (KEC), and Jennifer Jones, KEC Field Technician, at the Nevada State Museum Annex, Carson City, Nevada, assisted by Ms. Maggie Brown, Archaeological Records Manager. A further search was conducted at the Nevada State Historic Preservation Office, Carson City, particularly for investigations of districts, buildings and structures. These record searches were conducted to locate data pertaining to cultural resources investigations and previously recorded archaeological sites located within one mile of the present project area. A search also was conducted through the online Nevada Cultural Resources Information System (NVCRIS) for relevant site and project data.

General Land Office (GLO) plat maps and land status records, obtained from the Nevada State Office of the U. S. Bureau of Land Management (BLM), Reno, Nevada, along with historic topographic maps archived at the University of Nevada Reno in the digital Mary B. Ansari Map Library, were consulted for the presence of historic cultural features within the project area, and its one-mile buffer. In addition, the Nevada State and National Register lists were consulted to determine the presence of nominated properties within one mile of the current project area. The objective of the records searches were: 1) to characterize types of cultural resources present in the vicinity of the current project area in order to anticipate cultural resources likely to be present; and 2) to identify previously recorded cultural resources present within the current project area in order to revisit them and document their present condition.

3.1.1 Previous Cultural Resource Inventories

Previously, 10 cultural resource inventories and other cultural resources projects have been conducted within one mile of the current project area (Table 3.1). These include cultural resources inventories done prior to road construction or improvements, construction of a wastewater treatment facility, construction of a truck inspection lot, and a survey prior to a land sale and a vegetation clearing project. Additionally, investigations regarding an historic grave are described (Anonymous 1998); a cultural resources overview of the Carson City BLM District is provided (Pendleton et al. 1982); an historic overview of the Hawthorne Army Ammunition Depot has been completed (Cleland et al. 1984); and there is a National Register of Historic Places (NRHP) Nomination Form for the Hawthorne Naval Ammunition Depot (Koval 1989). Five of the 10 projects failed to encounter any cultural resources. Of these inventories, four are located partially or entirely within the current project area (Jerrems 1977; Koval 1989; Seelinger 1977; Seldomridge 1986). With the exception of Koval's (1989) NRHP Nomination form which includes the community of Babbitt, none of the other projects has recorded cultural resources within the project area or its one mile buffer.

Table 3.1 Cultural Resources Investigations Conducted Within One Mile of the Project Area

Report No. NSM/Agency	Report Title	Author(s)/ Year	Comments
11-23/11-77	*Nevada State Museum Archaeological Resources Short Report: Archaeological Resources Investigation for City of Hawthorne Proposed Wastewater Treatment and Disposal Plan (Contract No. 1041).*	Seelinger 1977	Survey of 175 acres prior to construction of a wastewater treatment and disposal plant. No cultural resources were observed.
11-42	*Cultural Resources Report Historical and Archaeological, Project E. A. 70847, SOS-21(2).*	Jerrems 1977	Survey of 4.8 acres for various road improvements. No cultural resources were observed.
11-48 BLM3-271	*USDI Bureau of Land Management Cultural Resources Report, Hawthorne Bypass Road (N-21321).*	Beals 1979	Survey of 9.5 acres for a road by-pass. No cultural resources were observed.
11-100	*An Archaeological Overview and Management Plan for the Hawthorne Army Ammunition Plant, Hawthorne.*	Cleland at el. 1984	Historic overview for the Hawthorne Army Ammunition Depot.
11-135 BLM3-1110	*Nevada Department of Transportation Cultural Resources Report NDOT-071-85R, Right-of-Way Betterment Along U. S. 95.*	Seldomridge 1986	Survey of US 95 corridor prior to road improvements. Ten prehistoric and one historic site were encountered and recorded. One prehistoric site was recommended as significant and eligible for nomination to the NRHP.
11-184	*An Intensive Cultural Resources Survey Truck Inspection Lot Expansion Hawthorne Army Ammunition Plant, Mineral County, Nevada.*	Weaver 1990	Survey of a 14.2 acre truck inspection lot. No cultural resources were observed.
11-223 BLM3-1118	*USDI Bureau of Land Management Cultural Resources Report, Noncompetitive Sale to Mineral County, N-45234.*	Boykin 1987	Survey of 8.2 acres prior to a land sale and vegetation clearing. No cultural resources were observed.

Report No. NSM/Agency	Report Title	Author(s)/ Year	Comments
11-235	*Hawthorne Army Depot Inspection of Grave Site.*	Anonymous 1998	Description of an historic grave probably associated with the C & C Railroad. Potentially it is significant, and eligible for nomination to the NRHP.
N/A	*Hawthorne Naval Ammunition Depot, National Register of Historic Places Registration Form.*	Koval 1989	NRHP Nomination Form for the Hawthorne Naval Ammunition Depot, detailing its history, and describing its facilities and structures. The community of Babbitt is included within the form.
18-146 BLM3-854	*Cultural Resource Overview, Carson City District, West Central Nevada..*	Pendleton et al. 1982	Overview of prehistoric and historic resources present within the Carson City District of the BLM, providing regional data for assessing cultural resources. The second part of the overview contains archaeological site information within the district, listed by county.

3.1.2 Previously Recorded Archaeological Sites

Only one previously recorded archaeological site, the town of Hawthorne (CrNV-03-1994), is located within one mile of the current project area (Table 3.2). Hawthorne began in 1881 as a stop along the Carson and Colorado Railroad. The U. S. Naval Ammunition Depot was moved to Hawthorne in 1929 after an explosion in 1926 at the U. S. Naval Ammunition Depot at Lake Denmark, New Jersey. Hawthorne is located adjacent to the project area to the south. No sites or other cultural resources have been recorded within the project area of potential effect.

Table 3.2 Previously Recorded Archaeological Sites Within One Mile of Project Area

Site No. (Agency)	Report No.	Site Type/Description	NRHP Significance*
CrNV-03-1994	18-146 BLM3-854	**Historic.** Hawthorne. Mineral County seat, founded in 1881, along the Carson and Colorado Railroad. The U.S. Naval Ammunition Depot was constructed in 1929-1930.	UE

3.1.3 State and National Register Properties

Examination of the Nevada State Register and the National Register of Historic Places revealed the presence of three historic properties within one mile of the project area that have been nominated to both of historic registers (Table 3.3). These include the Mineral County Courthouse nominated in 1982, the Sixth Street School nominated in 1999, and the Hawthorne USO Building listed in 2005. All these properties are historic buildings within the town of Hawthorne located south of the present project area. A district nomination was partially prepared for the Hawthorne Naval Ammunition Depot by Koval (1989) but was never completed. Therefore, the District was never nominated. The town of Babbitt, present within the current project area, is located within the proposed boundaries of this district.

Table 3.3 State/National Register Properties Within One Mile of the Project Area

Property/County	Year Nominated	Distance to Project APE
Hawthorne USO Building, Mineral County	2005	1.5 blocks south from the southern project area boundary
Mineral County Courthouse, Mineral County	1982	5 blocks south from the southern project area boundary
Sixth Street School, Mineral County	1999	5 blocks south from the southern project area boundary

3.1.4 Historic Maps and Historic Indices

Historic maps depicting the project area include three GLO Plat maps dating between 1880 and 1922 (Table 3.4), and three U.S.G.S. Topographic Maps (Table 3.5) dating between 1911 and 1955 (reprinted in 1921 and 1965, respectively). Historic features identified on these maps are relatively limited, and are dominated by roads, fences, a pipeline, a cemetery, and the town of Hawthorne. During the late 1920s, Hawthorne became the site of the U. S. Naval Ammunition Depot. The lack of features noted on maps dating from this period may reflect military use of the area, characterized by a concern for security, rather than an exact representation of the types of features present there. For example, the town of Babbitt, which provided civilian housing for depot workers during WWII, is not indicated on the historic topographic maps for the region.

Few of the identified historic features are located in the project area. These are dominated by roads, both named and unnamed. Also present within the project area are two fences on the 1880 GLO plat, and a cemetery and airport runways noted on the 1955 (Reprinted 1965) *Hawthorne* 15' U.S.G.S.

Topographic Quadrangle. The town of Babbitt is indicated on the most recent (1987) topographic map for the area, but not on the mid-1950s topographic map, probably for reasons of security.

Table 3.4 GLO Plat Maps Reviewed Within One Mile of the Project Area

Map Date	Map Location	Information
1880	T.8N., R.30E.	**Within the Project Area:** Two unnamed roads in Sections 16 and 21; Two fence lines in Section 21. **Within One Mile of the Project Area:** "Walker Paiute Indian Reservation" in Sections 16 and 17; Unnamed road in Section 20; An unnamed road in Sections 22 and 27; "Hawthorne" in Section 27.
1888	T.8N., R.30E.	**Within the Project Area:** Two unnamed roads in Sections 16 and 21. **Within One Mile of the Project Area:** "Walker Paiute Indian Reservation" in Sections 16 and 17; Four unnamed road in Sections 16, 17, 20, 22, and 27; "Hawthorne" in Section 27.
1922	T.8N., R.30E.	**Within the Project Area:** Road "To Hawthorne" in Sections 16 and 21. **Within One Mile of the Project Area:** Road "To Hawthorne" in Section 17; Road "Cot Creek to Hawthorne" in Sections 20 and 28.

Table 3.5 Historic Topographic Maps Reviewed Within One Mile of the Project Area

Map Date	Map Name	Information
1911 (Reprinted 1921)	*Hawthorne* 1:125,000	**Within the Project Area:** Two unnamed roads within the project area and its one mile buffer, and the town of Hawthorne (Unsurveyed) **Within One Mile of the Project Area:** Numerous unnamed roads, "Hawthorne", and a "pipeline" (Unsurveyed)
1911 (Reprinted 1951)	*Hawthorne, Nev.-Calif.* 1:250,000	**Same as above**
1955 (Reprinted 1965)	*Hawthorne* 1:62,500	**Within the Project Area:** Unnamed road in Sections 15 and 22; Highway 95 in Sections 21 ans 22; three airport runways in Sections 15, 16, 21, 22; "Cemetery" in Section 22. **Within One Mile of the Project Area:** "Hawthorne" in Section 27; unnamed road Section 17

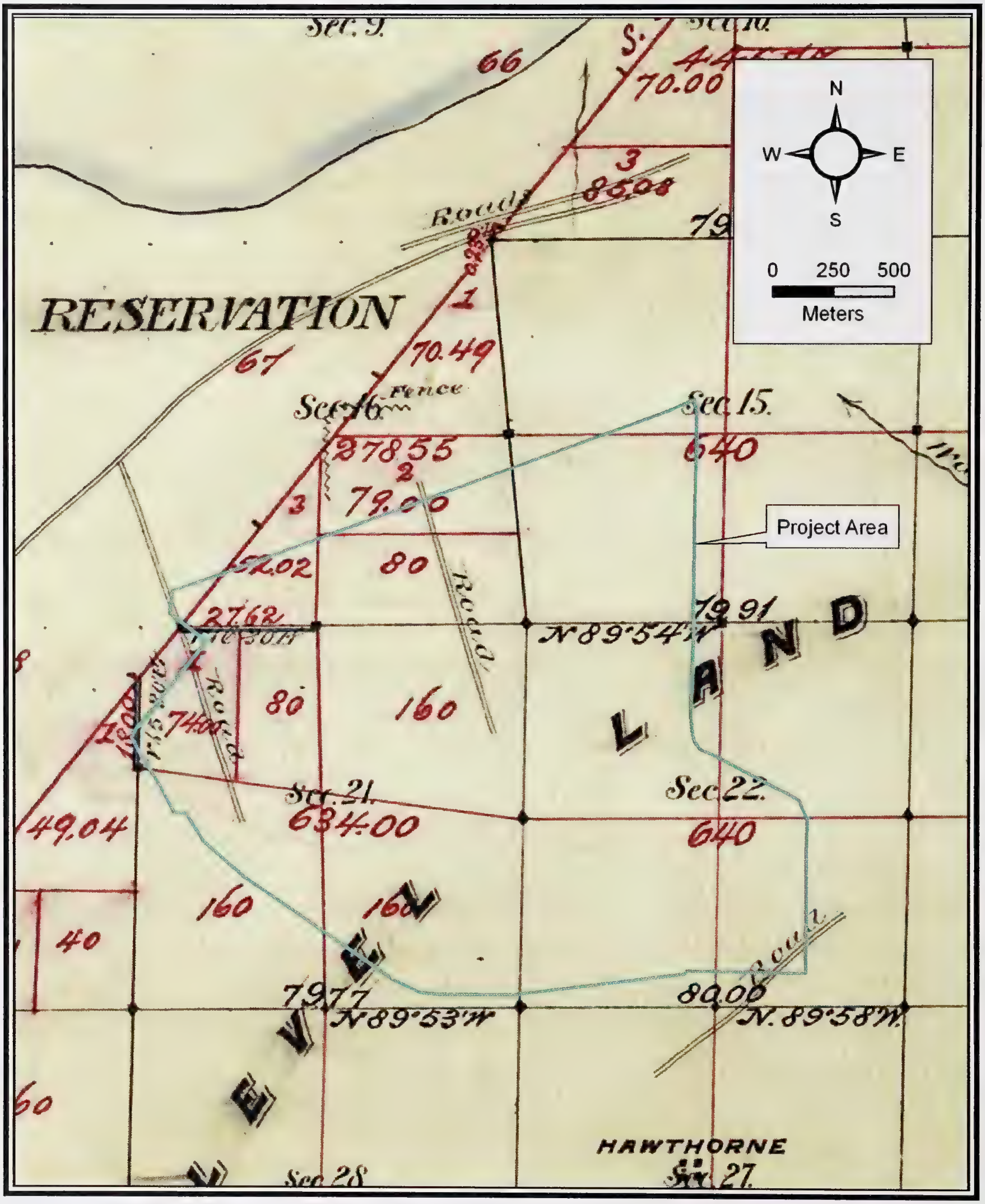


Figure 3.1 GLO Plat Map of T.8N., R.30E. (1888) with Project APE. Base map courtesy of Bureau of Land Management.

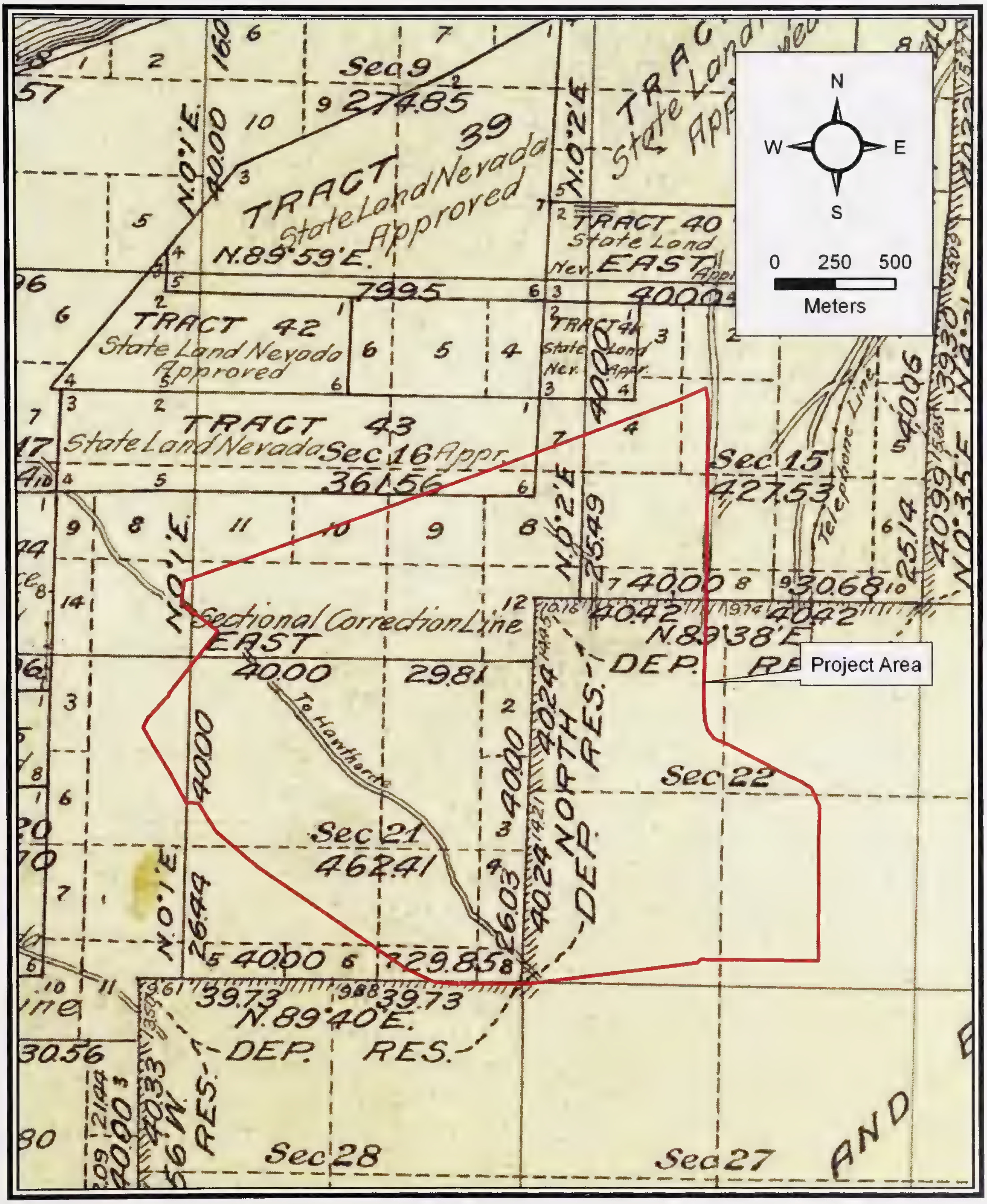


Figure 3.2 GLO Plat Map of T.8N., R.30E. (1922) with Project APE. Base map courtesy of Bureau of Land Management.

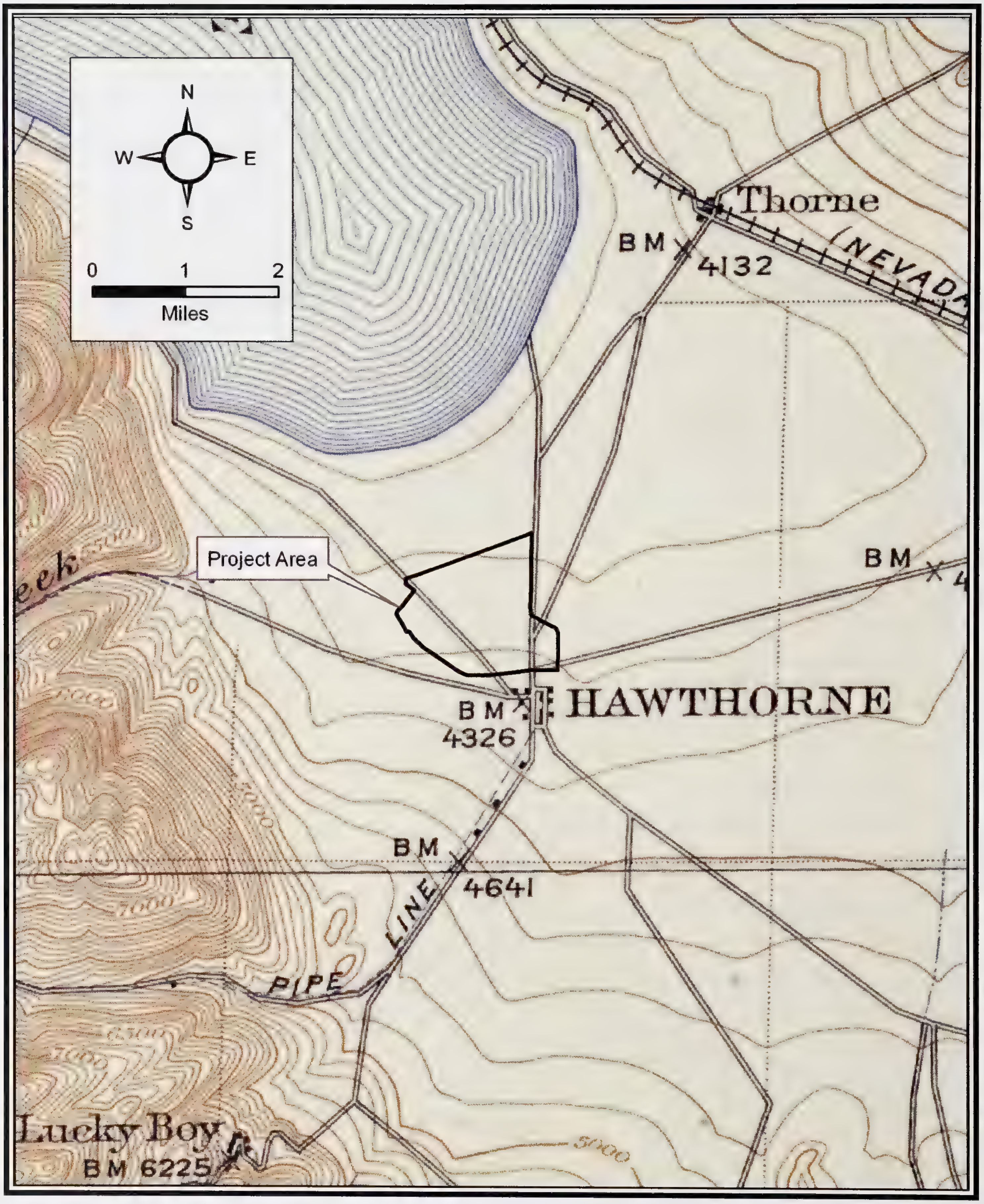


Figure 3.3 *Hawthorne* 1:250,000 scale Topographic Map, 1911 (Rp. 1951) with Project APE. Base map courtesy of Mary B. Ansari Map Library, University of Nevada, Reno. Displayed at 1:100,000.

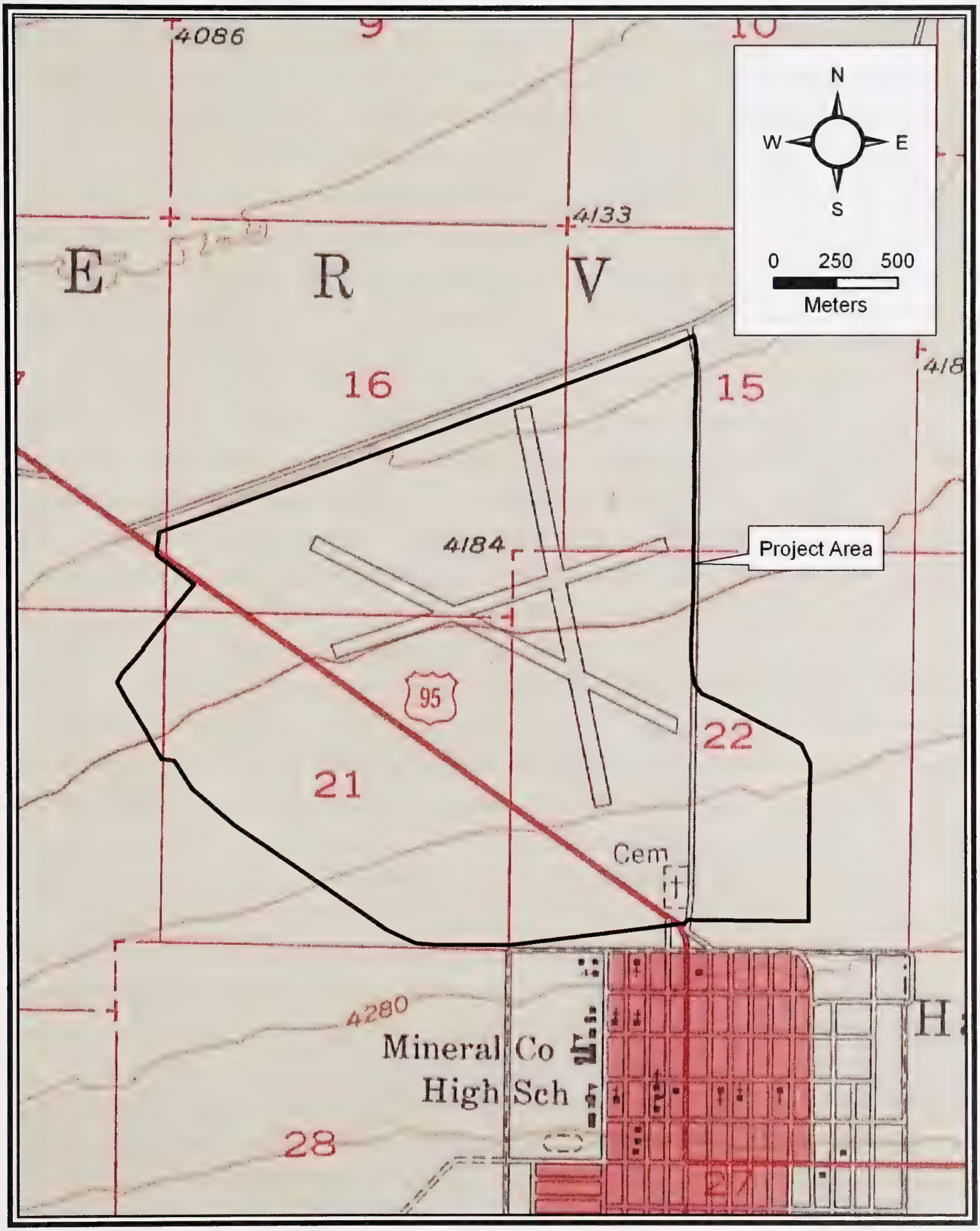


Figure 3.4 *Hawthorne, Nev.*, 1:62,500 scale, Topographic Quadrangle, U.S.G.S., 1955. T.8N., R.30E. Courtesy of Mary B. Ansari Map Library, University of Nevada, Reno. Displayed at 1:24,000.

3.2 INVENTORY EXPECTATIONS

Consideration of data obtained during the literature and records search suggests both prehistoric and historic archaeological sites and components may occur within the current project area. The former mainly will be composed of lithic scatters. These will probably contain varying amounts of lithic debitage and flaked stone tools. Temporally diagnostic artifacts, chiefly projectile points, may be present at some sites/components. It is possible that their temporal ranges may span the entire Holocene. Ground stone tools probably will occur only very rarely, if at all. Most, if not all, of the prehistoric sites/components are expected to be surficial in nature. Lithic artifacts also may occur as isolated finds.

Historic sites/components are expected to be dominated by those related to the ammunition depot. Prominent among these are the Babbitt town site and the Hawthorne Airport. Other facilities related to the ammunition depot also may occur, either as archaeological sites or components, or as isolated features. Associated historic artifacts may include tin cans, glass bottle fragments, ceramics, various metal objects, and so forth. These may be contained in refuse scatters or be present as isolated artifacts. Other historic sites or components which may be encountered include roads, and other types of transportation/communication sites/features (utility lines, infrastructure facilities).

3.3 FIELD SURVEY METHODS

Pre-field research has included a description of the environmental and cultural settings for the project region from sources concerning the physical and biological environment, prehistory, ethnography, and history of the project region (see Sections 1.4 *Natural Setting*, and 2.0 *Prehistoric and Historic Overview and Research Themes*). A search of records concerning prior archaeological investigations and previously recorded cultural resources within the project vicinity also was conducted (see Section 3.1 *Prior Research*). This background research led to the formulation of themes, time periods, and geographic limits for an historic context, which provide the basis for evaluation of cultural resources encountered during the field survey.

The cultural resources inventory of the proposed project area is an Intensive Level Cultural Resources Inventory defined as Class III cultural resources inventory by Barker (1990), consisting of pedestrian ground survey of the project areas with the exception of areas graded by modern surface disturbance activities such as airport runways. Survey was accomplished by crew members walking multiple parallel transect lines spaced no more than 30 m apart to provide a thorough coverage of the project area. In areas where the expectation of encountering cultural resource was high (i.e., near structures, historic features, flat areas, rock outcrops), the distance between transects was reduced.

When cultural materials were encountered, the surrounding area was intensively examined for the presence of associated materials. Hand-written notes document all field observations associated with the survey. The field notes were used as the basis for the site forms prepared for each recorded site. Guidelines, standards, and forms developed by the Intermountain Antiquities Computer System (IMACS) staff were used to record sites. Drawings and 35 mm photographs supplement the field notes. A portable *Thales MobileMapper* global positioning system (GPS) receiver (± 2 m error) was used to record the position of cultural resources encountered during the survey. Following return to the office, the GPS derived data were directly uploaded to *ArcView* geographic information systems (GIS) software for locational data and site mapping. Sketch map details, such as elevation contours, were added by means of clipping information from the Statewide 30 m digital elevation model (DEM). Narrower contours were approximated by using *Spatial Analyst* (ESRI) software to interpolate the contours desired.

3.4 PREHISTORIC FLAKED STONE ARTIFACT ANALYSIS

All lithic debitage and flaked stone tools will be identified as to the tool stone (raw material) employed. Basic metric attributes will be provided for all tool forms. Descriptions of lithic debitage and biface tool assemblages encountered in the field are facilitated by considering them byproducts of a single behavioral system (Collins 1975) in the development of final tool forms (i.e., flake, blade, and biface trajectories, see Hayden et al. 1996; Odell 2004:91-110). Information regarding both the flake stage and biface reduction sequence continua can be used to infer site function and settlement patterns. Prehistoric nomadic hunter gatherer populations scheduled their movements to coincide with the availability of seasonal resources. Their access to tool stone sources was part of the equation regarding when and where they positioned themselves across the landscape while pursuing other extractive tasks. This has been termed "embedded procurement," and contrasts with a strategy for obtaining tool stone and finished tools emphasizing trade (Morrow and Jeffries 1989).

It is common, but not universal (see Elston and Raven 1992, Part 3:81), that the various tasks associated with the lithic reduction sequence defined below occur at different locations. For example, Stage I and II bifaces (early stage) may be removed from a quarry, transported to another location where they are reduced to a Stage III or IV tool, and then taken to yet another location where the hafting element is added. Finally, the finished point may be discarded at a kill site following breakage. Consequently, each of these locations will have variable assemblage compositions that characterize both their flake and the biface assemblages. For example, on Bald Mountain in White Pine County, Nevada, quarry assemblages are heavily weighted toward primary, shatter and secondary flakes, with early stage bifaces strongly dominant (Kautz and Simons 2005:76-77). In contrast, a number of tool reduction and production loci (scatters) throughout the area have assemblages that are just the opposite, with secondary and tertiary flakes and late stage bifaces dominant. These latter sites apparently represent the location where final tool production takes place.

A knapper's choice of a tool production strategy is situational in nature. The concept of "progress" in tool manufacture has been an archaeological will-of-the-wisp since it aptly served a Victorian mentality. Population packing, environmental change, risk, uncertainty, variability in logistical mobility, and/or storage technology, can and do, effect procurement reliability/efficiency, impacting how behavior is organized on a moment to moment basis (Boydston 1989). Thus, it may be best to emphasize conceptual dichotomies: i.e., expedient vs. curated technology; reliable vs. maintainable tools; exotic vs. local raw materials; collecting strategy vs. foraging strategy; risk vs. efficiency; and so forth. These conceptual dyads are characterized by optimization principals which allow stone tools to be viewed in a larger cultural adaptive and systems framework (Jochim 1989). At any point in time, it is the cumulative outcome of human technological choice that conditions a specific adaptive response.

3.4.1 Lithic Debitage

Debitage is the primary by-product of stone tool manufacture. It is the residuum resulting from the behavior of impacting one stone with another. The impact causes "flakes" of the impacted stone to break away, resulting in either the shaping of the object stone or creation of a thin "flake" from which smaller, narrower tools can be manufactured. If chosen, these latter "blanks" can be used as they are first generated as an expedient tool. They also may be further modified and reduced to provide a more formal tool such as a knife or a projectile point. Depending on the stone tool reduction strategy and the tool stone, stone flakes may be considered as waste, they may be used immediately as expedient tools, they may be saved or cached for later use, or they may be further reduced immediately into formal tools.

Each stone tool reduction strategy produces a somewhat different pattern in its debitage assemblage (Andrefsky 2001a, 2001b). Analysis of flaked stone debitage, termed *aggregate analysis*, allows formal characterization of an assemblage, and objectively attempts to recreate the reduction sequence present at a single component site (Hall and Larson 2004; Larson 2004). However, in cases where the site is multi-component (i.e., a mixed assemblage), a substantial analytic obstacle results from the "smearing" effect of blending products from different debitage assemblages (Carr and Bradbury 2004:41-44). It therefore is critically important to determine whether sites contain single or multiple components.

Analysis of the flake assemblage involves a description of each flake's morphological characteristics. These various flake "types" are the result of their place in the reduction sequence, and represent similar behavioral and tool stone variables. These flake types are described below.

Primary, or *Core Reduction Flakes*. These flakes are formed during the first stage of stone tool manufacture, which entails the relatively rapid removal of the unwanted outer portion of the tool stone. If this occurs at the quarry site, these large, thicker flakes may have the outer, weathered stone surface, referred to as *cortex*, present. The ventral (or interior) surface of the core reduction flake is flatter than other kinds of flakes, and there is likely to be a prominent bulb of percussion present. The striking platform will most often be oriented perpendicular to the flake's ventral surface, and there normally will be few, but deeper and variously oriented, dorsal (convex outer surface) scars.

Secondary, or *Biface Thinning Flakes*. These flakes are indicative of a more careful removal of flakes from a primary flake in order to refine the tool's shape. This includes both the outline of the tool, and perhaps more important and demanding, thinning the flake to reduce its overall size and weight. In essence, this is the beginning of the production of a biface; an artifact that has been flaked along both faces and/or edges. Biface thinning flakes are identified most easily by the presence of an acute, lipped, and generally multifaceted, striking platform, sometimes with evidence of grinding (preparation). These flakes usually are thinner in cross-section, slightly curved around their ventral surface, and possess a diffuse bulb of percussion. There can be two forms of this flake type. The first is the lipped flake, with a multifaceted platform. A less commonly encountered form resembles a fish scale in plan view, and, while often slightly lipped, the platform is typically narrow and curvate, or recurvate. These latter flakes are the result of later stage thinning and resharpening of a relatively refined later stage biface.

Tertiary, *Retouch*, or *Pressure Flakes*. These flakes usually are the byproduct of sharpening or resharpening the edges of cutting and piercing tools (points, scrapers, knives, etc.). As such, they generally are produced during the last stage of formal tool manufacture. These flakes usually are quite small and thin, and have an elongated form. They also possess small point platforms that may be lipped, and often are crushed. Pressure flakes frequently have a central dorsal ridge or *arris* perpendicular to the platform, extending the length of the flake.

Shatter. These are the angular or blocky fragments that are a byproduct of stone tool manufacture, but cannot be identified as flakes or portions of flakes. They are more common when poor quality or internally flawed tool stone is used.

3.4.2 Bifaces

Bifaces are simply flakes or cores that have been flaked on both their dorsal and ventral sides. They can be considered either preforms or generalized bifacial tools, depending on the intent or need of the stone knapper (Seck 1980:88; Kelly 1988). Bifaces lack temporal significance (Bettinger 1978), but like flakes, can also be classified according to their stage in the reduction process, from generalized preform to completed formal tool. The biface stages described below are the product of a long history of lithic analyst's work to operationalize a behaviorally relevant biface typology, or more precisely, a biface continuum (see, Bradley 1975; Callahan 1979; Crabtree 1971, 1972; Muto 1971a, 1971b; Pendleton 1979:15-20; Self 1980:65-71; Sharrock 1966; and Womack 1977).

Stage I Bifaces. This stage represents the beginning of the biface classification, and may only consist of an unmodified or slightly modified piece of lithic material struck from a core or lithic exposure. Cortex may have been removed (over 50% of the Stage I bifaces from Lowe Shelter still had cortex visible, Self 1980:68), but the artifact retains an irregular, often asymmetrical plan edge, and will usually be diamond shaped in cross-section. It may be difficult or impossible to distinguish a "tip" from a "base." In practice, it may also be impossible to distinguish this stage from other blanks that have been discarded by the knapper. An exception would be if a number of these artifacts are discovered in a cache. Please note that Stages II through V apply to *any* biface, whether it began as a flake blank, or not.

Stage II Bifaces. This stage is most notable for the fact that flakes have been removed from the edge by means of percussion and/or pressure flaking. This is done in order to give the item its general shape, and reduce its thickness. The initial striking platform present in Stage I bifaces is maintained, and other striking platforms will have been prepared, producing edge abrasion and striation (Sheets 1973). Edges are regularized, producing a recognizable "tip" and "base." The Stage II biface is biconvex in cross-section, and thinner. Cortex should be fully removed.

Stage III Bifaces. This stage in the biface reduction continuum is most notable for an effort to continue thinning the artifact by either percussion or pressure. Platform maintenance, often by means of edge grinding, is an effective way to operationalize the thinning process. The object's edges will become less sinuous and more centered when viewed from the side, and the biface becomes generally lenticular in cross-section.

Stage IV Bifaces. Pressure flaking is the dominant technique used during this stage to regularize the outline of the biface, produce a regular and centered edge when viewed from the side, and to establish a flaking pattern, if desired (i.e., collateral, parallel oblique, etc.). As a result, the thickness to width ratio is reduced. The lenticular cross-section is maintained. Artifacts at this stage of production often are called “preforms” (Bradley 1975:6).

Stage V Bifaces. This is the finished stone tool, distinguishable from Stage IV by the addition of a hafting element, such as side or basal notching.

4.0 RESULTS

4.1 GENERAL OBSERVATIONS

On June 19-22, 2007, a Class III pedestrian survey was done of the entire 1,116.5 acre project area. Nathan Rhyne and Richard Breitling, Kautz Environmental Consultants, Inc. (KEC) Field Supervisors led KEC Field Technicians Nathan Acoraci, Owen Lund, Brett Rodela, and Robert Whalley. The project area is located a plain, which has very sandy alluvial soils. Surrounding the Hawthorne Airport runways are areas where formation of very low sand dunes has occurred. Vegetation in the area includes sage brush, shadscale, rabbit brush and other plants included within the shadscale community.

The area has been heavily disturbed by refuse dumping, and general use of the area for construction of modern structures, including grocery stores, convenience stores, and an RV park, and storage of machinery. Many of the site which were observed had modern refuse. Glass, plastic, and aluminum beverage containers were present throughout the project area. This occurred to a much lesser degree in the former Babbitt town site. With U. S. Highway 95 dividing the project area, an active military installation located at its north end, and the town of Hawthorn located directly south, the disturbance to the project area is not surprising.

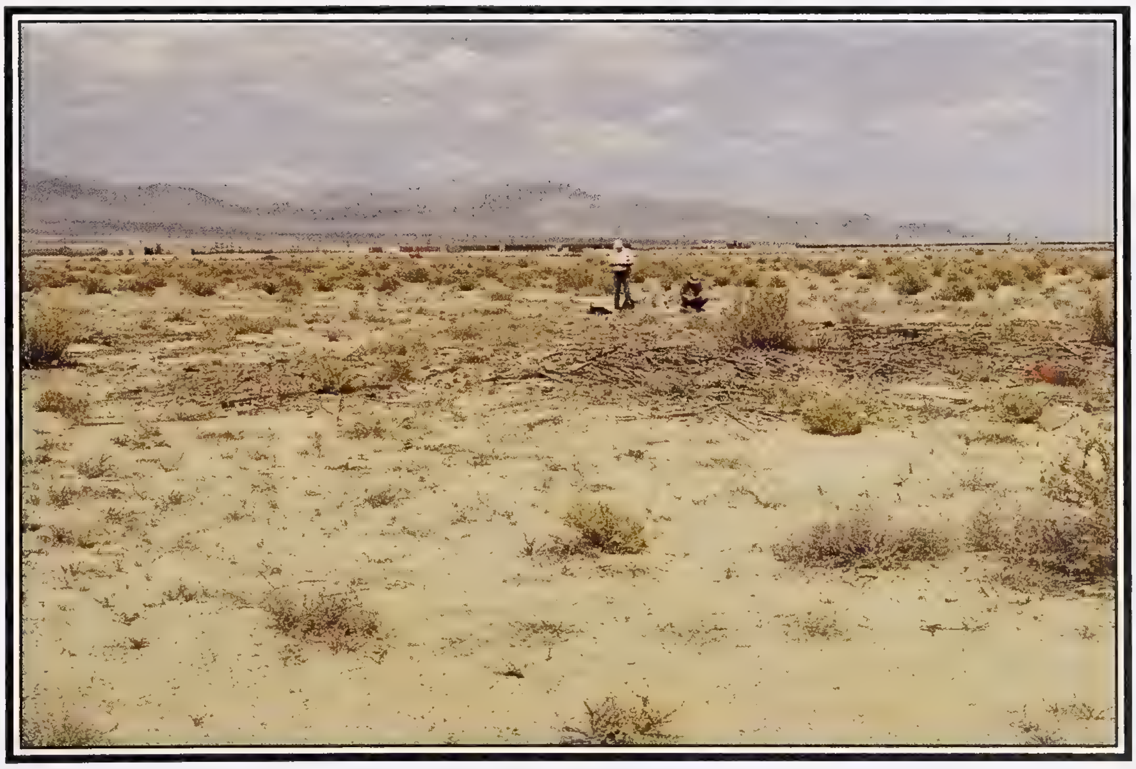


Figure 4.1 Overview of Project Area.

4.2 ISOLATED FINDS

A total of 31 isolated artifacts, and 10 historic isolated features were observed and recorded within the project area (Table 4.1). The 31 isolated artifacts include 27 (87.1%) historic artifacts (21 cans, three glass bottles, a button, shattered plate glass, and a ceramic figurine), and four (12.9%) prehistoric artifacts (all flakes). Among the 10 isolated historic features are four pits, two concrete slab foundations, two cadastral markers, a concrete platform, and a rock cairn. The isolated artifacts and features mainly occur in the northeast, northwest, and southwest corners of the project area (Figure 4.2)

Table 4.1 Isolated Artifacts and Features

Isolate ID No.	**Isolated Find Description** [1]	**UTM Coordinates**		**Legal Description (T.8N., R.30E.)**
		Easting	**Northing**	
[1]Measurements for flaked stone tools and ground stone items are in centimeters (length x width x thickness). Measurements noted in ( ) indicate that it is incomplete (broken). The measurements for cans follow those provided by can manufacturers, who measure by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical. [2]Zone 11, North American Datum 1983.				
1	**Historic:** Vent hole can, internal rolled seam, stamped ends, double knife punch opened, 215 x 315, evaporated milk. Identified as a No. 1B, c. 1931-c. 1985 (Bitting 1937:751; Edwards et al. 1990:100-101); or a Type 11, 1917-1929; Type 12, 1917-1929; Type 19, 1930-1975; or Type 21, 1950-c. 1985 (Simonis 1997). Bowyer (2002:113-114) notes a height variation for this can of 314 to 400.	356816	4267590	SW¼, SE¼, SW¼, Section 16
2	**Historic:** Rectangular can, internal rolled seam, crimped ends, double screw driver punch opened, 400 x 509, oil. Lithography on side, "...ZER / ... RUST;" lithography on end, "UPON OPENING REMOVE / ENTIRE CONTENTS AT ONCE;" product manufacturer is unknown, but the can dates after c. 1920s (Anderton and Mullen 1994; Rock 1989:52, 61-62).	257830	4266918	NW¼, NW ¼, SW¼, Section 22
3	**Historic:** Vent hole can, internal rolled seam, stamped ends, unknown opening, 300 x 414, evaporated milk. "PUNCH HERE" embossed twice on one end; identified as a No. 1B, c. 1930s-1960s (Bitting 1937:751; M. E. Kimball, personal communication 2007; R. C. Leavitt, personal communication 2003), or a Type 18, 1935-1945 (Simonis 1997).	356738	4267775	NW¼, SE¼, SW¼, Section 16

Isolate ID No.	Isolated Find Description [1]	UTM Coordinates		Legal Description (T.8N., R.30E.)
		Easting	Northing	
[1]Measurements for flaked stone tools and ground stone items are in centimeters (length x width x thickness). Measurements noted in ( ) indicate that it is incomplete (broken). The measurements for cans follow those provided by can manufacturers, who measure by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical. [2]Zone 11, North American Datum 1983.				
4	**Historic:** Vent hole cam, internal rolled seam, stamped ends, double knife punch opened, 215 x 406, evaporated milk. Identified as a No. 1 Tall, c. 1914/c. 1920-c. 1931 (Bitting 1937:752; Rock 1984:18(2)100, Table 1; 1987:21), or Type 9, 1915-1930 (Simonis 1997).	`357865	4266927	NW¼, NW ¼, SW¼, Section 22
5	**Historic:** Glass bottle, colorless, oval/horseshoe shaped with vertical fluting on one edge, aluminum atomizer top, embossed on base with "AVON 29," 1.25 x 4.5 x 1.75 inches (in.). The cap material and body shape suggest a 1930s to 1940s period. The California Perfume Company introduced its first "Avon" product in 1928, with the company changing its name to Avon Products, Inc. in 1939 (Avon 2006a, 2006b).	356646	4267691	SE¼, SW¼, SW¼, Section 16
6	**Historic:** Square concrete platform measuring 79 x 79 in., with steel pole support centrally located. This feature is surrounded by a concrete ring which is four feet (ft.) wide, and 20 ft. in diameter. This may have been a platform for a wind sock pole or other aid to navigation.	357894	4266924	NW¼, NW ¼, SW¼, Section 22
7	**Historic:** Cylindrical can, internal rolled seam, crimped ends, unknown opening, 610 x 904, oil. Lithography present, "TRITON;" Triton motor oil was introduced to the market in the 1930s by the Union Oil Company (Scipophily.com 1996-2007).	356728	4267590	SW¼, SE¼, SW¼, Section 16
8	**Historic:** Pit, with a 48 in. diameter, and 12 in. deep	356950	4267494	NE¼, NE¼, NW¼, Section 21
9	**Historic:** Motor Oil can, internal rolled seam, crimped ends, punch spout opened, embossed on one end "SAE 10;" c. 1933/1935-c. 1958 (Rock 1989:134).	356474	4267814	NW¼, SW¼, SW¼, Section 16
10	**Historic:** Pit, 160 in. diameter, 36 in. deep, associated back dirt pile at 306°, 160 in long by 30 in. wide.	356886	4267485	NW¼, NE¼, NW¼, Section 21
11	**Historic:** Vent hole can, internal rolled seam, stamped ends, double knife punch opened, 215 x 406, evaporated milk. Identified as a No. 1 Tall, c. 1914/c. 1920 to c. 1931 (Bitting 1937:751; Rock 1984:18(2)101, Table 1), or Type 9, 1915-1930 (Simonis 1997).	356405	4267788	NW¼, SW¼, SW¼, Section 16

Isolate ID No.	Isolated Find Description [1]	UTM Coordinates		Legal Description (T.8N., R.30E.)
		Easting	Northing	
12	**Historic:** Vent hole can, internal rolled seam, stamped ends, unknown opening., 300 x 314, evaporated milk. "PUNCH HERE" embossed twice on one end; identified as a No. 1B, c. 1930s-1960s (Bitting 1937:751; M. E. Kimball, personal communication 2007; R. C. Leavitt, personal communication 2003), or a Type 18, 1935-1945 (Simonis 1997).	356921	4267466	NW¼, NE¼, NW¼, Section 21
13	**Historic:** Cone top beverage can, crown finish, internal rolled seam, crimped ends, 212 x 408, cone 104, beer or soft drink. Beer - 1935-1957 (Martells 1976:6-9; Rock 1989:73); soft drink - 1953-1954 (Rock 1989:146).	356349	4267758	NW¼, SW¼, SW¼, Section 16
14	**Historic:** Glass bottle, colorless, ABM, continuous thread finish, embossed on body "FEDERAL LAW FORBIDS SALE / OR RE-USE OF THIS BOTTLE / 4/5 QUART," embossed on base "58 / IPI / 68," alcoholic beverage. The use of "Federal Law...." began in 1935 and ended in 1964 (Busch 1987:21(1)75; IMACS 1992:472.8; Munsey 1970:126). The manufacturer is unknown.	358334	4266720	SE¼, NE¼, SW¼, Section 22
15	**Historic:** Concrete slab foundation, 13 x 29 feet (ft.) with concrete walkway attached to the south side 4 x 22 ft., unknown function.	358381	4268600	NE¼, NE¼, SW¼, Section 15
16	**Historic:** Tall rectangular can, internal rolled seam, crushed and partially buried, approximately 900 x 1400 x 900, fuel. Internal rolled seams in general use from c. 1901-date (Rock 1989:40, 61-62).	358326	4266812	SE¼, NE¼, SW¼, Section 22
17	**Historic:** Concrete slab foundation, partially buried by sand, portion within project area 34 x 151 ft. The foundation is bisected by a barbed wire fence, and is adjacent to a railroad grade located to the north.	358327	4268600	NE¼, NE¼, SW¼, Section 15
18	**Historic:** Vent hole can, internal rolled seam, stamped ends, double knife punch opened, 215 x 315, evaporated milk. Identified as a No. 1B, c. 1931 to c. 1985 (Bitting 1937:751; Edwards et al. 1990:100-101); or Type 11, 1917-1929; Type 12, 1917-1929; Type 19, 1930-1975; or Type 21, 1950-c. 1985 (Simonis 1997). Bowyer (2002:113-114) determined a height variance for these cans of 314 to 400.	358268	4267007	SW¼, SE¼, NW¼, Section 22

[1] Measurements for flaked stone tools and ground stone items are in centimeters (length x width x thickness). Measurements noted in ( ) indicate that it is incomplete (broken). The measurements for cans follow those provided by can manufacturers, who measure by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.
[2] Zone 11, North American Datum 1983.

Isolate ID No.	Isolated Find Description [1]	UTM Coordinates		Legal Description (T.8N., R.30E.)
		Easting	Northing	
19	**Historic:** Cylindrical can, internal rolled seam, crimped base, key-wind side strip opened, 400 x 212, candy. Lithography present, in script "O'Brians," on reverse, "... MY CRYSTAL / NUGGETS OUT OF PURE / SUGAR CORN SYRUP / CITRIC ACID, AND / ARTIFICIAL FLAVORINGS / AND COLORINGS, THE / ...I CAN GET." Cans of this type opened by a key-wind side strip could date as early as c. 1904 (Rock 1989:40, 61-62), but the label information regarding ingredients suggests a more recent date of the 1960s to present.	358391	4268484	NE¼, NE¼, SW¼, Section 15
20	**Historic:** Button, two-piece metal, four-hole sew-through, 5/8 in. diameter (24 lignes), used on a vest, coat or jacket.	358596	4266948	NW¼, NW¼, SE¼, Section 22
21	**Historic:** Flat oblong, two-piece drawn, knife C-cut opened, 606 x 108 x 405, fish. These cans date from c. 1897 to date (Rock 1989:139-140).	358348	4267395	NE¼, SE¼, NW¼, Section 22
22	**Historic:** Internal friction can, internal rolled seam, crimped ends, opened with a removable lid, crushed, approximately 900 - 1004, opening 800, dry product (tea, coffee, cocoa, spices, paint). Internal friction cans date from c. 1903 (Swedberg and Swedberg 1985:19).	358794	4266448	NE¼, SW¼, SE¼, Section 22
23	**Historic:** Plate glass, five fragments, approximately 1/8 in. thick, faint amethyst coloring. According to Lockhart (2006:40(2)50), amethyst colored plate glass began in c. 1800+, possibly ending by the 1920s (IMACS 1992:472.7; Jones and Sullivan 1989:13-14; Lockhart 2006:40(2)50-54; Miller and Pacey 1985:19(1)44-45; Munsey 1970:55; Newman 1970:4:74, Figure 3).	358392	4267330	NE¼, SE¼, NW¼, Section 22
24	**Historic:** Tall rectangular can, internal rolled seam, crimped ends, 904 x 1304 x 904, fuel. Only half of can remains. Internal rolled seams have been in general use since c. 1901-date (Rock 1989:40, 61-62), but cans of this size used for kerosene may have an end date of c. 1940s due to World War II material use reduction.	358632	4266619	SW¼, NW¼, SE¼, Section 22

[1] Measurements for flaked stone tools and ground stone items are in centimeters (length x width x thickness). Measurements noted in ( ) indicate that it is incomplete (broken). The measurements for cans follow those provided by can manufacturers, who measure by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.

[2] Zone 11, North American Datum 1983.

Isolate ID No.	Isolated Find Description[1]	UTM Coordinates		Legal Description (T.8N., R.30E.)
		Easting	Northing	
25	**Historic:** Vent hole can, internal rolled seam, stamped ends, double knife punch opened, 300 x 406, evaporated milk. Identified as a No. 1 Tall, c. 1914/c. 1920 to c. 1931 (Bitting 1937:751; Rock 1984:18(2)101, Table 1), or Type 9, 1915-1930 (Simonis 1997).	358357	4267209	NE¼, SE¼, NW¼, Section 22
26	**Historic:** Tall rectangular can, internal rolled seam, crimped ends, bail wire handle, hand soldered pour spout on punched opening, 900 x 1306 x 900, fuel. Internal rolled seams in general use c. 1901-date (Rock 1989:40, 61-62), however hand-applied pour spout openings were probably replaced by machine-applied spouts and closures by 1930 (M. E. Kimball, personal communication 2007).	358605	4266710	SW¼, NW¼, SE¼, Section 22
27	**Historic:** Rock cairn or pile, elliptical, 76 x 42 in. ±200 small cobbles visible,	358250	`4268395	SW¼, NE¼, SW¼, Section 15
28	**Historic:** Tall rectangular can, internal rolled seam, crimped ends, bail wire handle, soldered pour spout with valve type closure, 904 x 1308 x 904, fuel. Internal rolled seams in general use c. 1901-date (Rock 1989:40, 61-62). The soldered spout may date only to World War II, a period when material use was reduced for the war.	358798	4266644	SE¼, NW¼, SE¼, Section 22
29	**Historic:** Pit or crater, 20 ft. diameter, 4 ft. deep.. Its location suggests it may have been in an area once used for target practice.	358303	4268401	SE¼, NE¼, SW¼, Section 15
30	**Prehistoric:** Obsidian tertiary (pressure) flake, heavily patinated by weathering	358678	4266782	NW¼, NW¼, SE¼, Section 22
31	**Historic:** Vent hole can, internal rolled seam, stamped ends, double pick punch or *Pet* milk opener, 300 x 314, evaporated milk. "PUNCH HERE" embossed twice on one end; identified as a No. 1B, c. 1930s-1960s (Bitting 1937:751; M. E. Kimball, personal communication 2007; R. C. Leavitt, personal communication 2003), or a Type 18, 1935-1945 (Simonis 1997).	358024	4268289	SE¼, NW¼, SW¼, Section 15
32	**Prehistoric:** Obsidian tertiary (pressure) flake, heavily patinated by weathering	358593	4266768	NW¼, NW¼, SE¼, Section 22

[1] Measurements for flaked stone tools and ground stone items are in centimeters (length x width x thickness). Measurements noted in ( ) indicate that it is incomplete (broken). The measurements for cans follow those provided by can manufacturers, who measure by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.

[2] Zone 11, North American Datum 1983.

Isolate ID No.	Isolated Find Description [1]	UTM Coordinates		Legal Description (T.8N., R.30E.)
		Easting	Northing	
33	**Historic:** Vent hole can, internal rolled seam, stamped ends, double pick punch opened, 215 x 314, evaporated milk. Identified as a No. 1B, c. 1931-c. 1985 (Bitting 1937:751; Edwards et al. 1990:100-101); Type 11, 1917-1929; Type 12, 1917-1920; Type 19, 1930-1975; or Type 21, 1950-c. 1985 (Simonis 1997). Bowyer (2002:113-114) determined a height variance for these cans of 314 to 400.	357896	4268161	NE¼, SW¼, SW¼, Section 15
34	**Historic:** Bottle, Georgia green, ABM, applied color label on neck "Coke," applied color label on body in script "Coca-Cola." The applied color label with the trademark "Coke" first appears in 1958 and became the standard after 1961 (Munsey 1972:59).	358595	4266753	NW¼, NW¼, SE¼, Section 22
35	**Historic:** Cadastral, brass cap embossed with "U.S. GENERAL LAND OFFICE SURVEY / PENALTY $250 FOR REMOVAL", located centrally as an indication of the separating line between Sections 16 and 15, with the date 1928, located on bottom, 1918	357907	4268289	SE¼, NW¼, SW¼, Section 15
36	**Prehistoric:** Obsidian secondary (biface thinning), moderately patinated by weathering	358809	4266973	NE¼, NW¼, SE¼, Section 22
37	**Historic:** Cadastral, brass cap embossed "U.S. GENERAL LAND OFFICE SURVEY / PENALTY $250 FOR REMOVAL", located centrally T8N R 30E, indicates the corner of Section 22. Has the date 1928, located on bottom, 1919	357692	4267785	NW¼, SE¼, SE¼, Section 16
38	**Prehistoric:** Banded obsidian tertiary (pressure) flake.	357498	4266410	NE¼, SW¼, SE¼, Section 21
39	**Historic:** Upright pocket tobacco tin, internal rolled seam, crimped base, external friction lid with wire pin hinge, crushed, 300 x 406 x 014, tobacco; c. 1901-c. 1972 (Cleeland 1984:22; Rock 1989:148).	356899	4267981	NE¼, NE¼, SW¼, Section 16
40	**Historic:** Ceramic figurine, facial image fragment, two pieces white improved earthenware, polychrome glaze.	356883	4267428	NW¼, NE¼, NW¼, Section 21
41	**Historic:** Pit, 140 in. diameter, 48 in. deep.	356862	4267425	NW¼, NE¼, NW¼, Section 21

[1] Measurements for flaked stone tools and ground stone items are in centimeters (length x width x thickness). Measurements noted in ( ) indicate that it is incomplete (broken). The measurements for cans follow those provided by can manufacturers, who measure by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.
[2] Zone 11, North American Datum 1983.

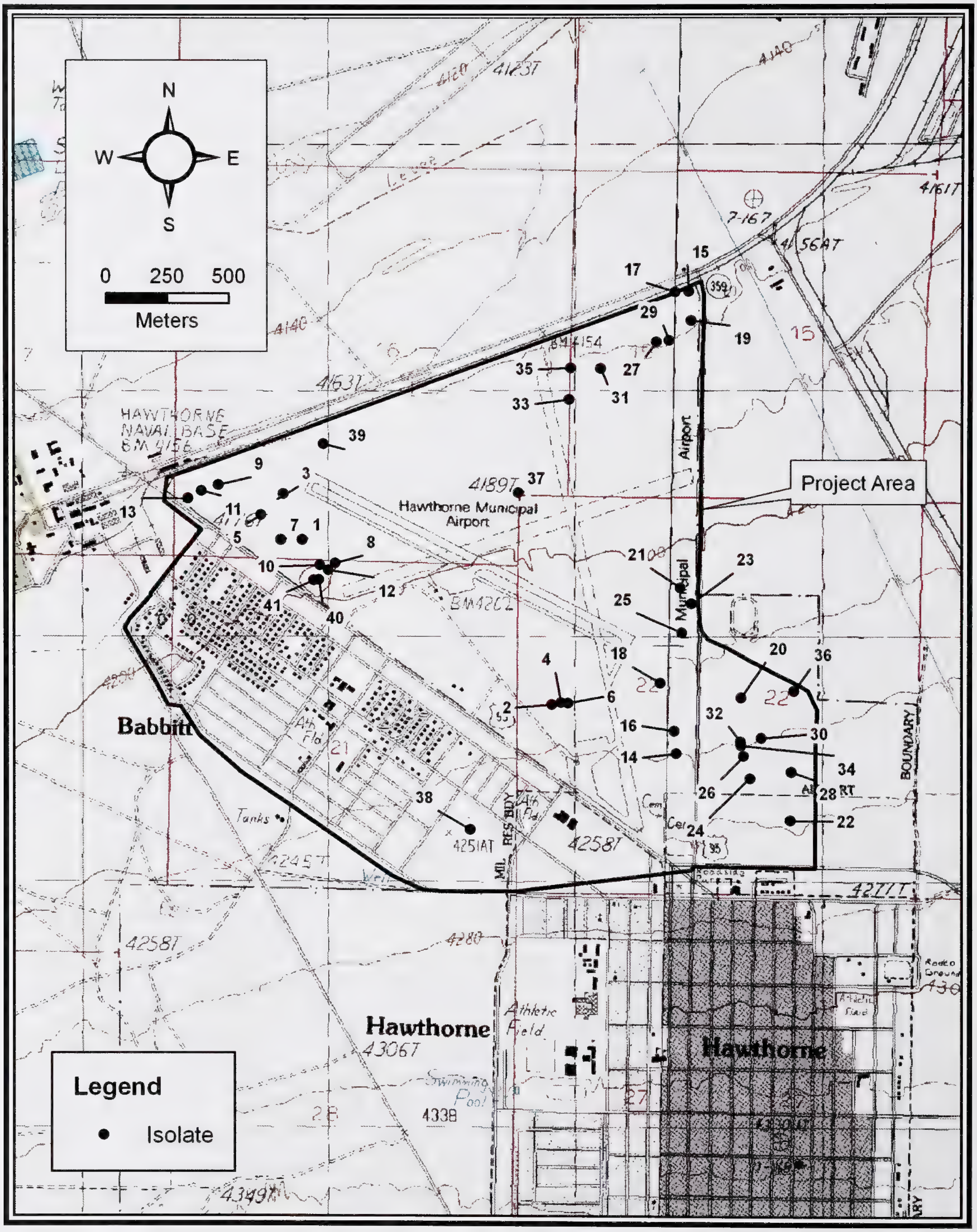


Figure 4.2 Isolate Location Map. Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

4.3 ARCHAEOLOGICAL SITES

A total of 21 archaeological sites were observed and recorded. These include 15 (71.4%) historic sites, five (23.8%) prehistoric sites, and one (4.8%) multi-component site. All of the six (27.3%) prehistoric sites/component are lithic scatters. The 16 (72.7%) historic sites/component include 10 (62.5%) refuse scatters, a refuse scatter possibly associated with an historic utility line (6.25%), an historic road segment (6.25%), the Hawthorne Cemetery (6.25%), the Hawthorne Sewage Treatment Facility (6.25%), the Hawthorne Airport (6.25%), and the former town site of Babbitt (6.25%). The Babbit Town site occupies the southwest portion of the project area, while the Hawthorne Airport is present in its central portion (Figure 4.3). The other sites mainly are in the southeast corner of the project area, with a few in the northwest and northeast corners (Figure 4.3).

4.3.1 Site 26Mn1651, The Hawthorne Cemetery

Site 26Mn1651 is the historic Hawthorne Cemetery. The size of the cemetery as measured by the fence that demarcates its boundary is 355 ft E/W by 1,042 ft N/S, totaling 8.6 acres. It is located on a flat valley floor, immediately north of Hawthorne and south of Walker Lake. The cemetery is bordered to the east by old Bonanza Road, Highway 95 to the south, and the Hawthorne Municipal Airport to the north and west.

Mature and immature trees have been planted throughout the cemetery. They include pine, cottonwood, and at least three other unidentified varieties. The cemetery contains 300+ graves, many of which are unmarked. The cemetery dates back to the 1880s, though some of the numerous unmarked graves may date to an earlier period when tombstones were unavailable. A grave dating to 2006 was noted, suggesting that the cemetery is still in use. The cemetery can be divided into several general areas. These include the modern portion of the cemetery, the older portion, the children's burial area, and a large open area of unmarked graves (Figure 4.4).

Three features occur within the overall site. They include two commemorative/memorial markers (Features 1 and 3), and two adjacent wooden grave markers, dating to 1887 and 1892, respectively (Feature 2). Feature 1 is located at the south end of the cemetery. It a square-shaped, 7-foot high marker constructed from stones, surrounded by 12 apparent World War II era bomb casings placed vertically in the ground. An inscription dedicates it to the memory of defenders of freedom who have made the supreme sacrifice in all wars, and gives a date of May 30, 1950. Feature 2 is two side-by-side wooden grave markers, marking the graves of Jane and Thomas Holman, who died in

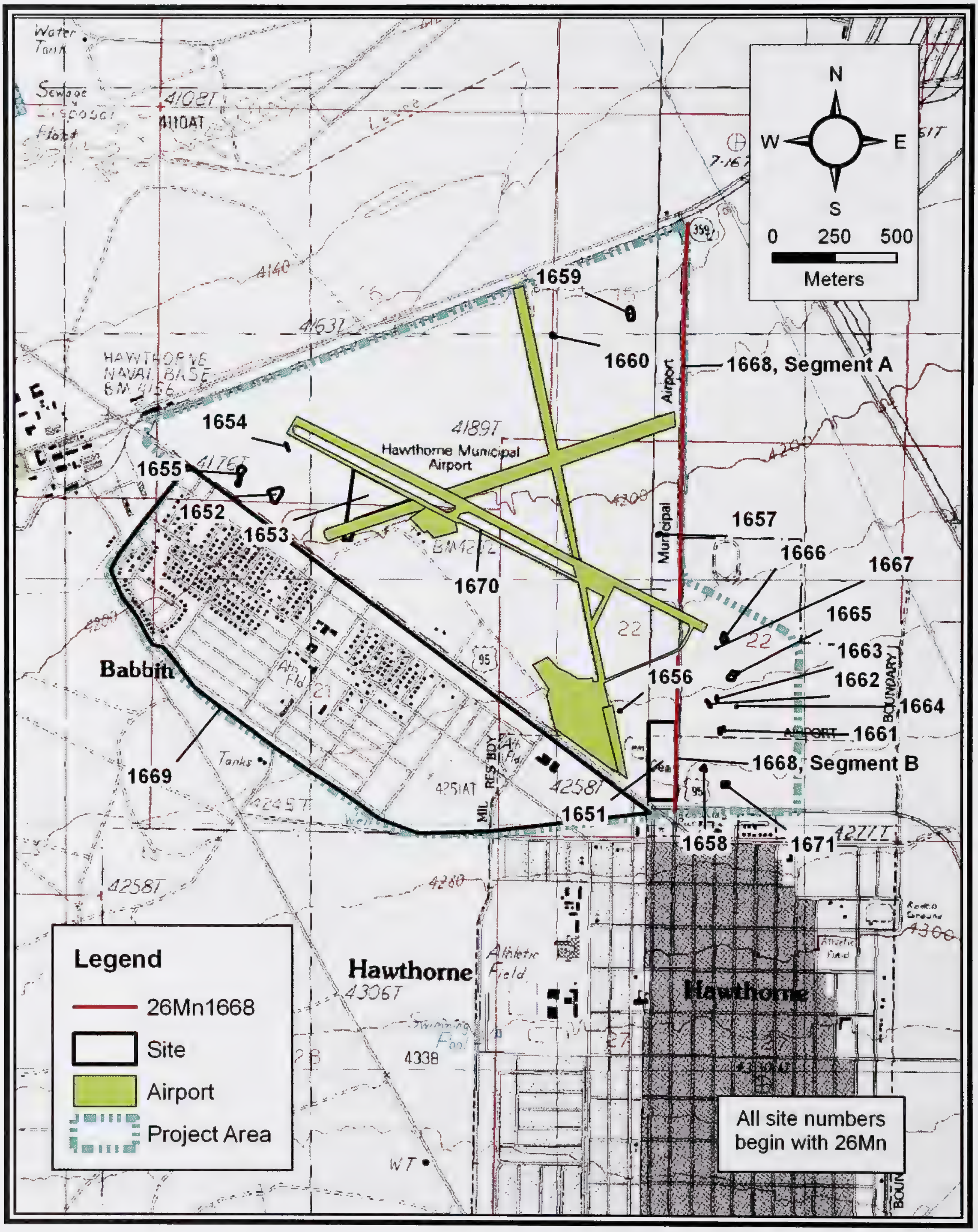


Figure 4.3 Site Location Map. Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

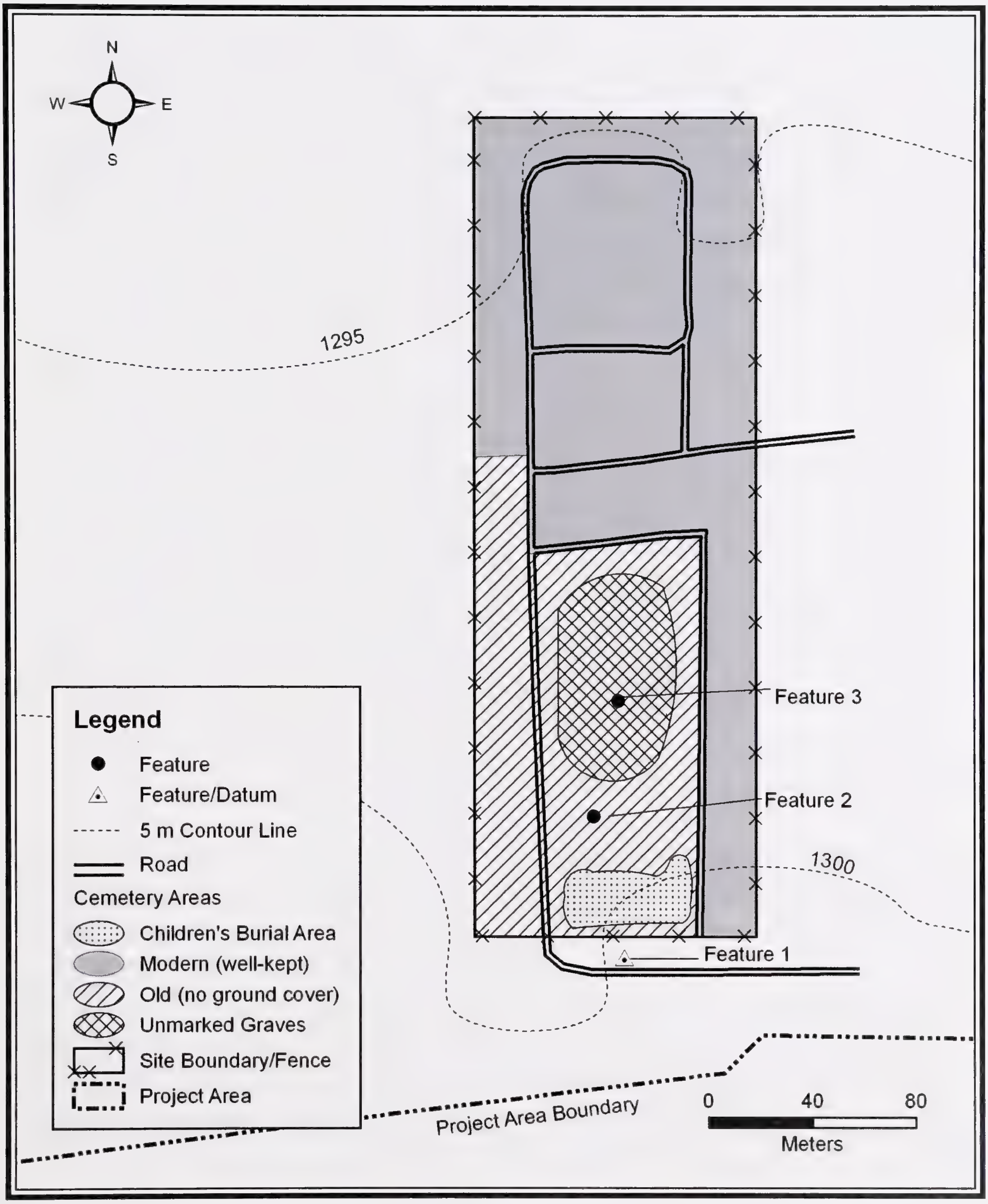


Figure 4.4 Sketch Map of Site 26Mn1651, Hawthorne Cemetery.

1887 and 1892, respectively. Feature 3 is located at the center of the open area within the cemetery. It is a large, approximately 3 ft diameter, boulder, with a brass plaque at its approximate center reading, "Hawthorne Centennial 1881 - 1981, Memorial to the Pioneers of Mineral County . . ."

The modern portion of the cemetery is well-maintained, with lush green grass covering the entire surface. This part of the cemetery generally contains all post-1960s burials. The cemetery's older portion lacks ground cover and has a surface of what appears to be natural sand, matching the undisturbed surface surrounding the cemetery. Graves in this area generally date prior to the 1960s. There are several exceptions, including one grave dating to 2006 which is in a family plot in this portion of the cemetery. Also present within the older portion of the cemetery is the large open area of unmarked graves, probably representing the oldest section of the cemetery, and the children's burial area.

The children's burial area is marked by a painted wooden sign that reads, "God's Little Angels." Graves in this area are variously marked by metal plaques, tombstones, or remain unmarked. All have a single painted wooden flower placed at the head of the grave. At least half the tombstones at the Hawthorne Cemetery, predominantly those in the older portion of the cemetery, have been photo-documented. An alphabetical listing of names and the dates of birth and death has been recorded by Gerry Perry of Henderson, Nevada. The list is available online at http://www.rootsweb.com/~cemetery/Nevada/mineral/hawthorne/pages/hawthorneae.html (2006 USGenWeb Tombstone Project, Gerry Perry). Feature 1 is the site's datum.

4.3.2 Site 26Mn1652

This site is a medium-sized (59 m N/S by 56 m E/W, 2,260 sq. m), diffuse, surficial, late historic to early modern refuse scatter, located on the flat valley floor, immediately north of Hawthorne and south of Walker Lake. A complete inventory of the historic-aged refuse was conducted. Modern debris includes tab-seamed beverage cans, aluminum top beverage cans, and all aluminum beverage cans. A total of 12 historic items, all tin cans (sanitary, flat top beverage, cone top beverage, vent hole, oil), were present. The site may represent repeated dumping episodes dating to the period from about the 1930s to 1958 (cf., Brewery Gems 2004-2007; Bitting 1937; Bowyer 2002; Edwards et al. 1990; Martells 1976; Rock 1989; Shasta Beverages n.d.; Simonis 1997). The maximum density of historic material is two artifacts/m^2. No associated features were observed.

This site is located immediately east of the town of Babbitt, within 100 meters of US Highway 95, both of which may have contributed to its location. This site has been impacted by modern dumping.

The site's datum is located at the site's approximate center. A 10 cubic cm trowel scrape revealed no subsurface cultural materials.

4.3.3 Site 26Mn1653

Site 26Mn1653 is a large (294 m N/S by 259 m E/W, 30,967 sq.m), diffuse to variable, surficial, historic refuse scatter, located on the flat valley floor, north of Hawthorne, and south of Walker Lake. The site is immediately south of an old airstrip at the Hawthorne Municipal Airport. The scatter contains about 400 artifacts, including 370 tin cans including two-piece drawn, oil, sanitary, key wind side strip, spice oblong, and vent hole; and 30 pieces of colorless bottle glass. The artifacts are distributed with a maximum density of 15 artifacts/m^2. No associated features were noted. The site may represent repeated dumping episodes with a approximate date range of 1931 to 1970 (cf., Beverage World 1982; Bitting 1937; Bowyer 2002; Digger History n.d.; Edwards et al. 1990; Foster n.d.; Georgia Outiftters 2006; Hormel Food Corporation 2007; Jones and Sullivan 1989; Munsey 1970; Pulati 1973; Rock 1989; Simonis 1997).

This site is located east of the town of Babbitt, within 300 meters of U. S. Highway 95, both or either of which may have influenced its location. This site has been impacted by modern dumping, including modern "*Miller*" beer bottles and pull-tab beverage cans. The site datum is located at the southern end of the site. A trowel scrape excavated at the site datum contained no subsurface cultural materials.

4.3.4 Site 26Mn1654

This site is a small (32 m N/S by 6 m E/W, 116 sq. m), sparse, surficial, historic refuse scatter located on the flat valley floor north of Hawthorne and south of Walker Lake. The scatter contains nine tin cans (sanitary, key wind side strip, two-piece drawn, multi-friction) located at the end of runway "A-10" at the Hawthorne Municipal Airport. The maximum density of artifacts is one/m^2. No features were associated with this site. The artifacts possess a date range of about 1942 to the 1970s (cf., Digger History n.d.; Georgia Outfitters 2006; IMACS 1982; Rock 1989). Both the site datum and a10cm^3 trowel scrape are located in the approximate center of the refuse scatter. The trowel scrape produced no subsurface cultural materials

4.3.5 Site 26Mn1655

Site 26Mn1655 is a small (81 m N/S by 32 m E/W, 1,344 sq.m), sparse, surficial, historic refuse scatter, located on the flat valley floor north of Hawthorne and south of Walker Lake. The scatter has two upright pocket tobacco tins, a key wind side strip can, three flat top steel beverage cans, a large fuel can, dimensioned lumber fragments, and asbestos shingles. The artifacts provide a date range of about 1935 to the 1970s (cf., Cleeland 1984; Martells 1976; Rock 1989). A complete inventory of all artifacts was taken.

The site is located just east of the town of Babbitt suggesting that the lumber and shingles may be the remains of Babbitt employee housing which has recently been demolished. The possible relationship between the tin cans and the military support housing remains unknown. The maximum density of artifacts is one/m^2. No features were associated with this site. The site datum and a10cm^3 trowel scrape are located in the approximate center of the site. The trowel scrape yielded no subsurface cultural materials..

4.3.6 Site 26Mn1656

This site is a small (7m N/S by 10 m E/W, 51 sq.m), surficial, prehistoric lithic scatter, located on the flat valley floor south of Walker Lake and north of Hawthorne. This site is composed of five obsidian flakes. No prehistoric formed tools, temporally diagnostic artifacts, or features were observed. Among the five flakes, one is a (primary) core reduction flake, three are (secondary) biface thinning flakes, and one is a (tertiary) pressure flake. Several flakes are very (naturally) abraded. This site is surrounded by disturbance resulting from modern developments. Additionally, artifact collection may have occurred at this site. A trowel scrape in the approximate center of the site resulted in the location of no subsurface cultural materials. This location is also the site datum.

4.3.7 Site 26Mn1657

Site 26Mn1657 is a small (18 m N/S by 9 m E/W, 114 sq. m), concentrated, surficial, historic refuse scatter, located on the flat valley floor, immediately north of Hawthorne, south of Walker Lake. The artifacts appear to represent a single dumping episode consisting of five tin cans (hole-in-cap, external friction, vent hole), 50 bottle glass fragments (amber, aqua, amethyst), two ceramic sherds (white improved earthenware), household items (a metal egg separator, a metal rake head), a cut and a wire nail, and three cooked animal bone fragments (possible pig). The artifacts have a date range of about 1900 to 1940 (cf., IMACS 1992; Jones and Sullivan 1989; Lockhart 2006; Miller and

McNichol 2002; Miller and Pacey 1985; Munsey 1970; Newman 1970; Rock 1984, 1987, 1989; Simonis 1997). The site datum is located in the approximate center of the site. A trowel scrape excavated in the southwest corner of the site revealed several artifacts, including the cut nail and the egg separator, but only between 0 and 5 cm below the surface. They most likely have been buried by windblown sediment which obviously covers portions of the scatter.

4.3.8 Site 26Mn1658

This site is a small (22 m N/S by 23 m E/W, 276 sq. m), diffuse, surficial, multi-component site. It is composed of a prehistoric lithic scatter, with two flakes, along with three historic era items, located on the flat valley floor between Walker Lake and Hawthorne, Nevada. The prehistoric component includes a (secondary) biface thinning flake and a (primary) core reduction flake, both manufactured from obsidian. The historic component consists of an amethyst and an olive green glass fragment, and a square nail; all of which suggest a date range of c. 1881 to the 1920s (cf., IMACS 1992; Jurney 1987; Lockhart 2006; Miller and McNichol 2002; Miller and Pacey 1985; Munsey 1970;Newman 1970). The glass is not flaked, and there is nothing to suggest that the prehistoric and historic components are directly associated. No other artifacts or features were identified. The datum is located in the southwest portion of the site, between the obsidian flakes. A trowel scrape excavated at the site datum contained no subsurface cultural materials.

4.3.9 Site 26Mn1659

Site 26Mn1659 is a small (52 m N/S by 27 m E/W, 1,155 sq. m), concentrated, surficial historic refuse scatter. The site is located on the flat valley floor between Walker Lake and Hawthorne. It is dominated by thousands of wood fragments, possibly derived from plywood. Other artifacts include nine tin cans including key wind side strip, sanitary, multi-friction, two piece drawn, upright pocket tobacco, vent hole; 13 metal barrel hoops; household items such as a glass tray, and a muffin tin; an aqua glass 5-gallon water bottle; clothing materials such as a shell button, and a metal buckle; as well as modern aluminum cans and aluminum topped pull-tab beverage cans. The artifacts have a date range between about the 1940s and the 1980s (cf., Bitting 1937; Bowyer 2002; Cleeland 1984; Crystal Springs Water Company 2007; Edwards et al. 1990; Martells 1976; Pool 1991; Pulati 1973; Rock 1989; Simonis 1997). It is not clear if the wood and other materials were dumped here or if they represent fragmented structure remains. The site datum has been placed in the approximate center of the site. A trowel scrape there had no evidence of subsurface cultural materials.

4.3.10 Site 26Mn1660

This site is a small (17m N/S by 19 m E/W, 231 sq. m), surficial, prehistoric lithic scatter located on the flat valley floor south of Walker Lake, north of Hawthorne. This site contains three obsidian (secondary) biface thinning flakes and a Stage V obsidian biface tip (projectile point tip?) fragment. The biface appears to be the tip fragment of a large tool with extensive weathering, suggesting that it may be quite old. No additional prehistoric formed tools, temporally diagnostic artifacts, or features were observed. A trowel scrape in the approximate center of the site revealed no subsurface cultural materials. This location is also the site datum.

4.3.11 Site 26Mn1661

Site 26Mn1661 is a small (26 m N/S by 21 m E/W, 328 sq.m), sparse, surficial, historic refuse scatter, located on the flat valley floor north of Hawthorne and south of Walker Lake. The scatter consists of ten tin cans including an upright pocket tobacco tin, hole-in-cap, vent hole, fish tin, and tall rectangular varieties. A complete inventory of artifacts was performed. The cans have a date range of approximately 1931 to the 1940s (cf., Bitting 1937; Bowyer 2002; Cleeland 1984; Rock 1989; Simonis 1997). The maximum artifact density is two cans/sq. m. No features were observed. The site datum and a $10cm^3$ trowel scrape are located in the approximate center of the can scatter. The trowel scrape yielded no subsurface cultural materials.

4.3.12 Site 26Mn1662

This site is a small (32 m N/S by 8 m E/W, 146 sq. m), surficial, prehistoric lithic scatter, located on the flat valley floor south of Walker Lake and north of Hawthorne. This site contains five obsidian flakes. These include three (secondary) biface thinning flakes and two (tertiary) pressure flakes. Several of the flakes are very worn probably due to sand-blasting. No prehistoric formed tools, temporally diagnostic artifacts, or features were observed. A road 1.5 meters wide bisects the site in its north half. A trowel scrape in the approximate center of the site contained no subsurface cultural materials. This location also serves as the site datum.

4.3.13 Site 26Mn1663

Site 26Mn1663 is a small (17 m N/S by 4 m E/W, 58 sq. m), historic-aged, surficial scatter of fragments from three glass insulators derived from an historic utility line. The site is located on the flat valley floor between Walker Lake and the town of Hawthorne, Nevada. The site does not have any features which could be interpreted as remnants of a utility line, such as poles. A modern utility line is located some 40 to 50 meters west of the site. The insulators are Hemingray and McLaughlin forms, dating between about the1920s and the 1950s (Glass Insulators 2001; McDougald and McDougald 1990; Whitten n.d.) and used for long distance telephone lines. The site's datum is located in the center of the site. A trowel scrape here produced no subsurface cultural materials.

4.3.14 Site 26Mn1664

This site is a small (7 m N/S by 2 m E/W, 12 sq. m), surficial, prehistoric lithic scatter, located on the flat valley floor south of Walker Lake and north of Hawthorne. This site contains two obsidian flakes, a (secondary) biface thinning flake, and a (tertiary) pressure flake. In addition, three unmodified obsidian nodules were observed. No prehistoric formed tools, temporally diagnostic artifacts, or features were observed. A trowel scrape in the approximate center of the site contained no subsurface cultural materials. The trowel scrape location also serves as the site datum.

4.3.15 Site 26Mn1665

Site 26Mn1665 is a small (37 m N/S by 48 m E/W, 943 sq. m), sparse, surficial, historic refuse scatter located on the flat valley floor between Walker Lake and Hawthorne. Artifacts include 16 tin cans including upright pocket tobacco, vent hole, sanitary, key wind side strip, and external friction varieties. Also present are 16 amethyst and olive green glass fragments, three white improved earthenware ceramic sherds, a wire nail, a gear, metal lids from a Mason jar and a 55-gallon drum, a metal trunk band, and a metal box insert. These items provide a date range between around 1893 and the 1930s (cf., Bitting 1937; Cleeland 1984; Edwards et al. 1990; Fike 1987; IMACS 1992; Jones and Sullivan 1989; Lief 1965; Lockhart 2006; Miller and McNichol 2002; Miller and Pacey 1985; Miller and Sullivan 1981; Minsey 1970; Newman 1970; Pulati 1973; Rock 1984, 1987, 1989; Simonis 1997). Based on these tight temporal assignments, this site appears to represent a single dumping episode. The site datum is at the approximate site center. A trowel scrape here had no evidence of subsurface cultural materials.

4.3.16 Site 26Mn1666

This site is a small (40 m N/S by 25 m E/W, 688 sq. m), surficial, prehistoric lithic scatter located on the flat valley floor south of Walker Lake, north of Hawthorne. This site contains 28 obsidian flakes that include 15 (secondary) biface thinning flakes and 13 (tertiary) pressure flakes. No prehistoric formed tools, temporally diagnostic artifacts, or features were observed. The densest concentration of artifacts is in the scatter's southwest quadrant where nine flakes occur in one square meter. The high number of biface thinning and pressure flakes suggests this site possibly represents a single tool manufacturing or re-sharpening event. As would be expected in a deflationary context, a trowel scrape in the approximate center of the site revealed no subsurface cultural materials. The trowel scrape location is also the site datum.

4.3.17 Site 26Mn1667

Site 26Mn1667 is a very small (5 m N/S by 2 m E/W, 6sq. m), sparse, surficial, historic refuse scatter, located on the flat valley floor north of Hawthorne and south of Walker Lake. The scatter includes a crushed *Log Cabin Syrup* tin, a white improved earthenware sherd, a wire nail, two amber and aqua glass bottle fragments, and a single shell button. The artifacts date between about the 1910s to the 1950s (cf., IMACS 1992; Pool 1991; Rock 1989).

The site is immediately adjacent to site 26Mn1668, an historic road, and may be associated with it. A complete inventory of artifacts was completed. No features were observed. The site datum and a 10cm^3 trowel scrape are located in the approximate center of the scatter. The trowel scrape produced no evidence of subsurface cultural materials.

4.3.18 Site 26Mn1668

This site is a segment of a road depicted on the 1911 *Hawthorne* (1911, Reproduced 1921) U.S.G.S. Topographic Quadrangle. This is the earliest published map of the area on which this road is depicted. The road passes south from Walker Lake across the dry lake bed to Hawthorne, Nevada and parallels the eastern edge of the current project area. This road segment is recorded in two portions, north and south. Both the north and south portions are 26 feet wide, paved, and 5,048 feet and 2,070 feet long, respectively. They are separated by one of the Hawthorne Municipal Airport (26Mn1670) runways and its associated graded pad, construction of which has destroyed the central portion of the road. No indication of the original dirt route is extant. An historic refuse scatter, 26Mn1667, may be associated with this road.

4.3.19 Site 26Mn1669, Town of Babbitt

This site is the town site of Babbitt, Nevada, located along US Highway 95, south of Walker Lake, and immediately north of Hawthorne, Nevada. The site is located on the flat valley floor that is the former lake bed of Walker Lake. It occupies an area 2,344 m north/south by 721 m east/west, totaling 332 acres. The site consists of street remnants in various stages of use to disrepair, concrete structure foundations, several standing structures, and associated refuse. Associated Structure 1 (Water Tower 7) and Structure 2 (formerly the Babbitt Elementary School, now the Sky View Academy), are described below in *Section 4.4*.

Originally, the town site was a grid-system of streets, up to 579 duplexes and 80 to 100 single-family residences, and a dozen other centrally-located community and commercial buildings. Among the latter were retail and grocery stores, personal service businesses, recreation areas, and public buildings that include a post office and a bank. There were two duplex floor plans built in the residential section of town. These were either had a plan of two two-bedroom units, or a plan consisting of a one-bedroom and a three-bedroom unit. Constructed to house married civilian workers at the Hawthorne Naval Ammunition Depot beginning with WWII, Babbitt was occupied between 1941 and 1987. Closely following the town's abandonment, it was almost entirely dismantled.

Today, a light scatter, consisting of a mix of historic and modern refuse, covers much of the Babbitt town site. The historic material is likely that remaining from when the town's buildings were razed or removed. The following is a random sample inventory of historic refuse encountered across the town site. It includes a fish tin, approximately 700 bottle glass fragments (7-Up green, aqua, cobalt blue, amethyst, colorless), five ceramic vessel sherds (Fiesta Ware, porcelain, white improved earthenware), a buckle from a pair of suspenders, a bicycle seat, ceramic tile fragments, and a ceramic spark plug with "AC 45 / PATENTED CORALOX". These artifacts date from between approximately 1880 and the 1970s (cf., Beverage World 1982; FireHydrant.org 1996-2002; FM Approvals 1999-2007; FM Global 1999-2007; Giarde 1980; Huxford and Huxford 1992; IMACS 1992; Jones and Sullivan 1989; Kellner 2007; Lockhart 2006; Miller and Pacey 1985; Munsey 1970; Museum of Beverage Collecting and Advertising 2003a, 2003b; Newman 1970; Rock 1989; Toulouse 1971; Whitten 2006).

The most significant impact to the site was the removal/razing of the vast majority of the town's buildings over the last few decades; a general lack of maintenance of infrastructural elements such as streets and curbs; and the modern use and subsequent alteration of portions of the town site. Today, the roads and curb/sidewalk network have fallen into major disrepair. The pavement is in varying stages of disintegration, all of the duplexes have been removed or destroyed, and the few remaining buildings have fallen into disrepair, or have been renovated and altered for re-use. Ninety-two concrete foundations are all that are left of the duplexes with associated refuse.

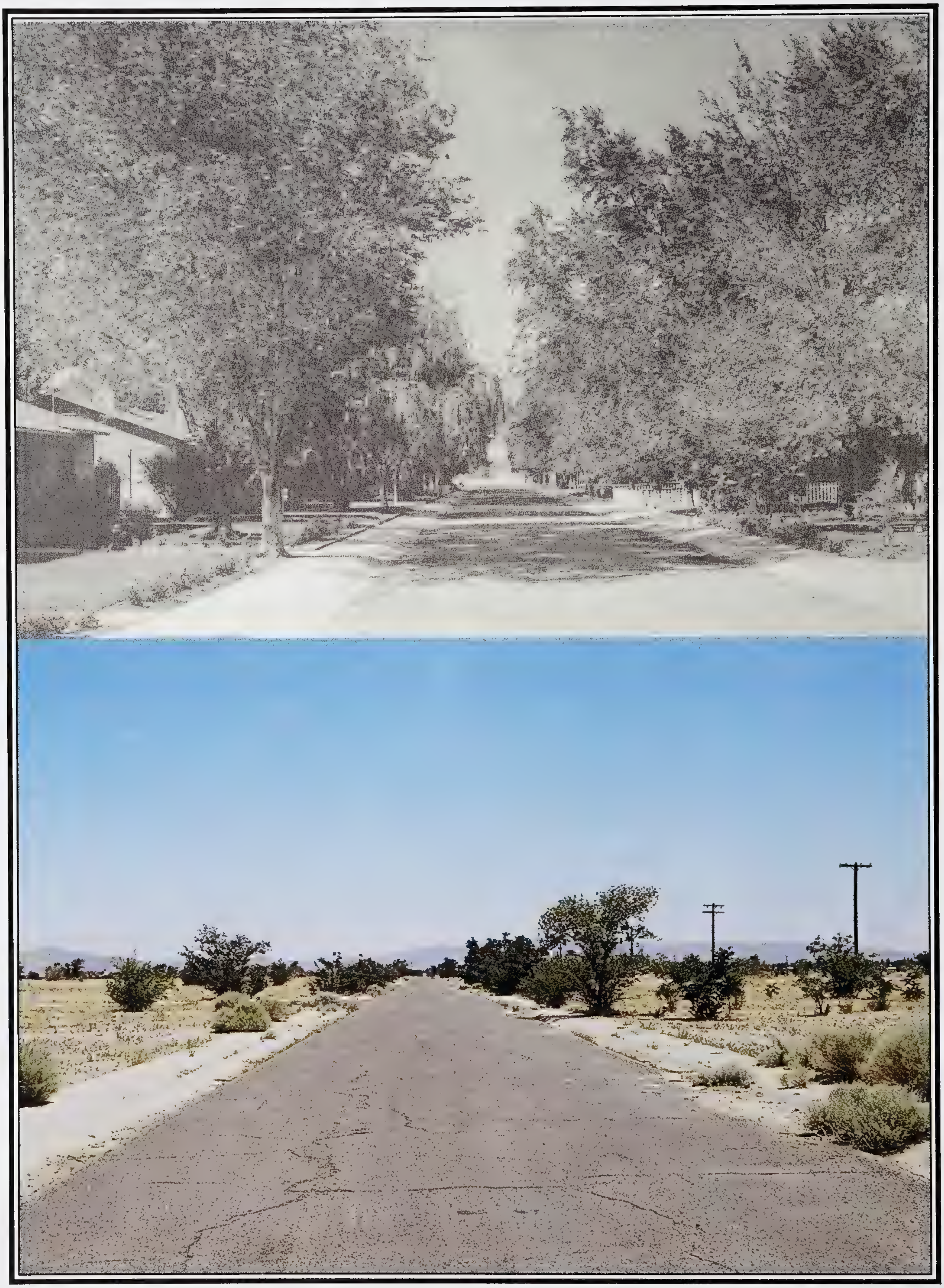


Figure 4.5 Top: Historic streetscape in Babbitt (*Babbitt, Nevada Historical Calendar 2007*, Mineral County Museum). Bottom: Modern view of street during recordation.

4.3.20 Site 26Mn1670, The Hawthorne Airport

This site is the Hawthorne Municipal Airport, located on the valley floor just south of Walker Lake. The air field has three runways. Two are dirt, and are no longer in use. A third paved runway currently serves the airport. The dirt runways include one trending north-south, which is 6,696 ft. long and 147 ft. wide. A second east-west runway is 4,917 ft. long and 220 feet wide. The total acreage of the historic portion of the airport is about 40 acres, which closely corresponds to the 46-acre emergency air field constructed by the Civilian Conservation Corps for the Hawthorne Naval Ammunition Depot (NAD) in the 1930s (Kolvet and Ford 2006:114). This suggests this is the location of that early NAD airport.

In addition to the two runways, one historic structure was noted on the site, a duplex from the nearby community of Babbitt which was moved to the airport. This structure is currently a Civil Air Patrol office building, probably moved to the area in the late 1980s, when Babbitt was demolished. The historic airport has a modern runway and airport buildings, located at the southern end of the former historic air strip. The modern runway trends northwest to southeast, crossing both historic runways. A portion of one of these older runways is used as a taxiway for the modern, paved, runway. Structure S-3 is located near the southern end of the site, in the midst of the modern airport buildings. Although several refuse scatters were noted in the vicinity, none could be definitively associated with the airport. The modern Hawthorne Municipal Airport covers approximately 47 acres.

The Civil Air Patrol (CAP) building is a former duplex within the former community of Babbitt, located on the southeast side of U. S. Highway 95, which now is used as an administrative facility for the CAP. Currently, the building is on the northwest side of the highway, next to several other buildings associated with a helicopter pad on the south end of the airport complex. This complex includes the buildings, fencing, and an asphalt-paved access road, parking areas, and pad. A single building to the southeast appears to be the administrative office for the airport. The area immediately around this building contains sandy soil, and limited natural vegetation.

The CAP Building is a single-story, wood-frame Vernacular Frame, built on a simple rectangular plan as a duplex during the 1940s in Babbitt. This building covers an area about 56 feet by 30 feet. According to Stephen Gustafson (Personal communication 2007), because it was demountable, it likely was constructed in approximately 1945. The current foundation is concrete block. Walls are clad with T-1-11 boards, except for the gable peaks. These have horizontal composition wood product shaped like boards, attached to the gables similarly to the T-1-11 siding. The roof is a normal-pitched side-gable sheathed with composition shingles. Eaves are open and medium, with exposed fascia boards at the eaves.

Visible under the shingles is the original board sheathing. There is no chimney. Two metal flues are present on the east pitch. There are three entries on the building. Two doors on the east elevation represent the former entries to the individual units. Each has a side door (north and south) exiting the kitchen area. On the east elevation, the roof cantilevers approximately 3 feet over the doors, which are centered. Below the doors is a concrete stoop with no steps. A similar concrete stoop, with no steps, occurs at each of the side exits.

Fenestration is symmetrical, consisting of all original, wood-framed windows, surrounded by simple wood trim. Several have aluminum screens. On the east elevation, the primary entries each have a wood door. These have a multi-light (3 lights stacked) above a single panel. North and south of each door is a ribbon of three four-over-four double-hung sash windows with beveled stiles. Beyond the ribbons are single six-over-six double-hung sash windows. These are located in the kitchen area of the former duplex units. The northern window has two fans in two of the upper-most muntins to provide ventilation in the north unit kitchen. Metal vents are evident below the windows on each end, although the one on the south end is covered over with a shingle.

The doors on the north and south elevations are wood. Both have a single light over a single panel. The south door has a smaller panel below a larger light. The center of each elevation has a three-light awning for the two bathrooms. Above these, in the gable peaks, are metal louvered vents. On the west ends are a single six-over-six double-hung sash type window. Below these are vents. Only the north is covered with a shingle. The south elevation has a door in the concrete block, providing access to the crawl space. The west elevation mirrors the east elevation, with two centered ribbons of three windows (four-over-four double-hung), and single

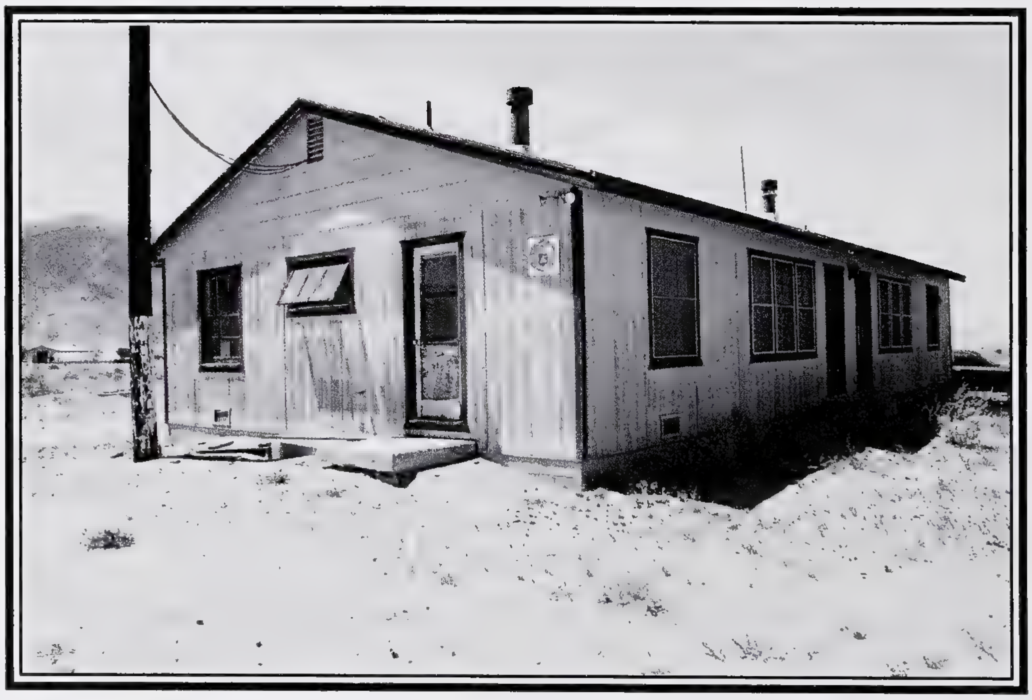


Figure 4.6 Civil Air Patrol building, south and east elevations.

end windows (six-over-six double-hung). Along the base of the building are four evenly-spaced vents, three of which are covered with a composition shingle.

Though the building was not entered, looking through its windows indicated that its interior has been greatly altered. The Babbitt duplexes had two floor plans. Plan A was a mirror style, with each unit containing a living room, kitchen, bathroom, two bedrooms, and three closets (Residential Unit Plan c. 1941a, c). Plan B had the same number of rooms and closets, but one unit had one bedroom, and the other unit had three (Residential Unit Plan c. 1941b). It was not possible to determine which plan had been used to construct the CAP building.

4.3.21 Site 26Mn1671, The Hawthorne Sewage Facility

This site is an historic sewage treatment facility located northeast of the U.S. Highway 95 Truck Route Bypass and east of the Hawthorne Cemetery (26Mn1651). It occupies an area approximately 21 m north/south by 25 m east/west (525 sq. m). Because the facility is no longer in use, it has been fenced with 6-foot security fencing, topped by approximately 2-foot high barbed wire strands. Enclosed within the fencing are the concrete treatment plant, a concrete influent trough, a wooden pump valve house (Associated Building A), a concrete and wood valve pit structure (Associated Building B), two mostly buried concrete valve pit tubes, three concrete pipes, and a probable effluent discharge trough, including concrete pipe fragments. No artifacts were observed in association. The surrounding area is currently undeveloped.

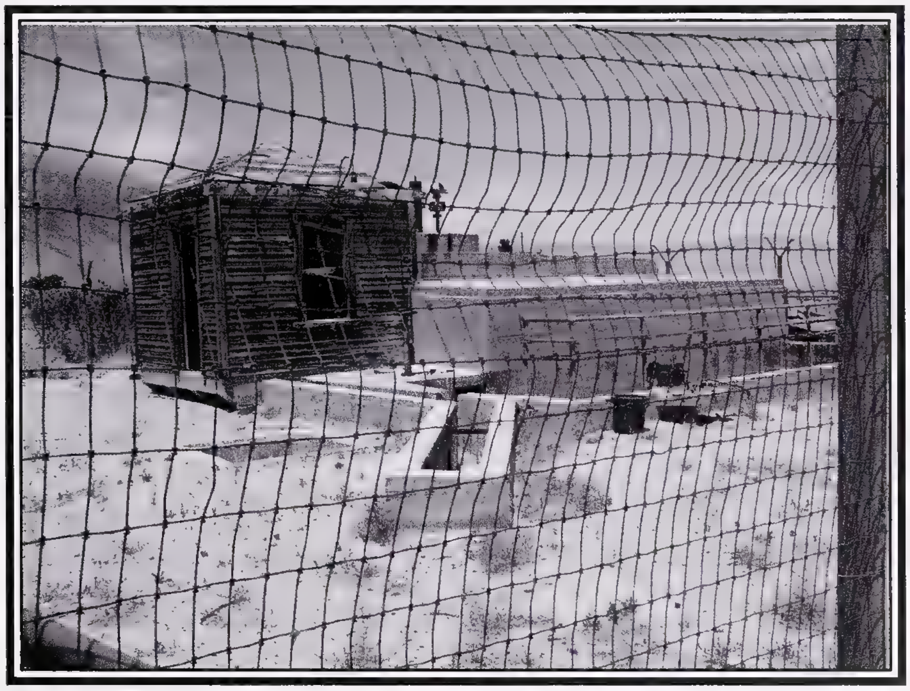


Figure 4.7 Sewage Facility, north and west elevations.

This site contains three structures, the primary sewage treatment plant (S-4), the associated building covering the pump valves (Associated Building A), and the valve pit structure (Associated Building B). The plant is the primary structure. It was built during the 1940s (Stephen Gustafson, personal communication 2007) and is constructed of poured concrete with an underground portion housing a series of concrete tanks for sewage treatment. The plant measures approximately 36 square feet.

At the north end is Associated Building B, a valve pit, and a concrete entry tube for the valve pit. Along a small portion of the north, all of the east, and most of the south elevations, is an open conduit. Pipe rails are attached to the structure at the north end, along the wall from there to the northeast corner, and along most of the east side's length. Near the south end of the east wall is a slight extension with the gear drive unit attached to the wall. The motor for the unit has been removed. South of this, near the wall, is a concrete tube extending to a valve pit. It is open, and is approximately 12 inches in diameter. At the southeast is the intake trough which is covered by a grill. On the structure at the southeast corner is a metal plate that probably provides access to the tanks. A large metal lid is located on the top of the structure.

The system was designed to deliver influent through the southeast trough into the series of tanks. These separated solid material from the liquid, performed a kind of dousing in the upper tanks (possibly adding chlorine at that time), and then sent the resultant effluent to the valve pit for distribution to the drying beds located to the north or northeast. It is unknown what the vent-like part of the south elevation is, though it may have provided ventilation for the pumps. Associated Building A was built to provide shelter for the pump valves, although there is one valve situated just to the east. This part of the treatment process apparently is a closed system, with access through the metal lids apparently used only for maintenance.

Building A is a wood-framed, single-story building in a simple square plan, located atop a ledge of the east portion of the sewage tank facility. Its walls are clad with horizontal lapped or beveled siding. Corner boards are evident. The building has a low-pitched, hipped, pyramidal roof with exposed wood slats. Its sheathing is gone. Eaves are not present due to a loss of the roof covering, but would have been narrow to moderate, based on the length of the rafter tails. The two openings have simple wood trim with butt joints. Neither the door on the south elevation, nor the window on the east elevation, remain. The framing in the window surround suggests the window was a tall rectangular form, probably a double-hung sash, with a wood sill. A goose-neck exterior light is over the window. The purpose of this building, added about the1960s, was housing for the pump valves (Stephen Gustafson, personal communication 2007).

Building B has a concrete foundation and lower walls, and a wood-framed upper portion. The framing (wood studs) is evident on the north elevation where the wall cladding is incomplete. Cladding is generally horizontally-placed wood board. The roof is a moderately-sloped shed type (to the east), with wood board slats. The eaves are narrow to moderate with exposed rafters and tails. The entry is through an opening with a wood surround on the west elevation. The door is no longer present. The lower walls and foundation are made of poured concrete. This was a valve pit used for distribution of the sewage effluent to the drying beds located to the north and/or northeast.

4.4 HISTORIC STRUCTURES

Two extant historic structures are associated with the former community of Babbitt. These include Water Tower No. 7, which currently is unused and the Sky View Academy, formerly the Babbitt Elementary School. Both are described in detail below.

4.4.1 Water Tower Number 7

Water Tower No.7 is located along the southeast edge of the former town of Babbitt. The remnant of Lexington Avenue, a major street through Babbitt, lies to the north. Historic maps of Babbitt indicate there once were three rows of trees near the west and north sides of the northwest corner of Lexington Avenue and 27th Street (Hawthorne NAD c. 1945). Today, the area is open and sandy, with sparse vegetation. The trees that once served as a windbreak are gone. There are concrete foundations present to the south, their purpose unknown.

The water tower was built between 1942 and 1944. Stephen Gustafson (Personal communication 2007), believes it was built in 1944, and painted in 1949, based on plans referring to the tower. However, McCloskey (1987:2) provides an aerial photograph taken in September 1942 showing a similar tower in the general location of the current one. Koval (1993:5) notes that the tank was connected to the Babbitt water system via, “a pressure reducing station and a 10 in. pressure line,” and was built specifically for Babbitt.

The name of this type of tower is unknown. This type of water tower was constructed as early as 1929 (Canadian Water Towers n.d.). Use of Water Tower No. 7 ended in 1985. Eventually it was given to the City of Hawthorne. However, Stephen Gustafson (Personal communication 2007) notes it has never been used by the community due to deterioration of the tank.

This tower is constructed of steel, with four legs connected at the base. A single pipe extends down from the center of the tank base to the ground, entering a pipe system connected to the associated chlorination building. This has a concrete foundation covered with wood slats, and is approximately 5 feet wide by 2 feet long. A 7-foot high chainlink fence, topped by canted barbed wire, enclosing an area approximately 39 feet square, surrounds the tower and the building. The tower legs have

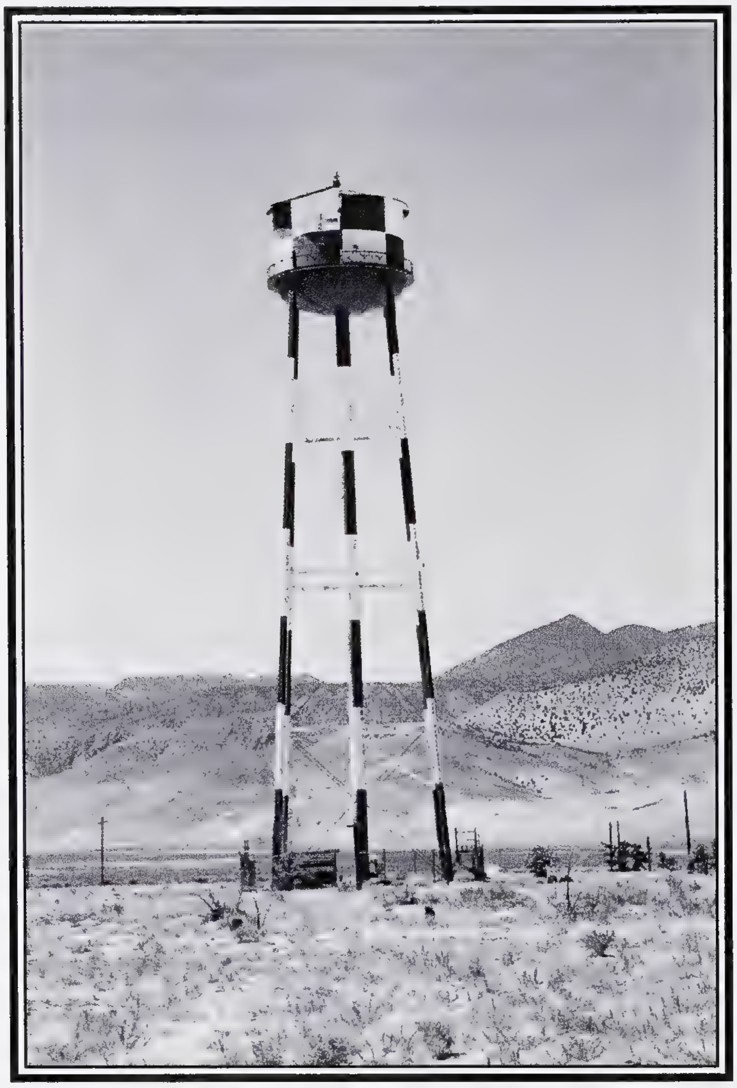


Figure 4.8 Water Tower Number 7, northeast elevation.

metal baffles attached to a height of approximately 15 feet to prevent people from climbing the tower. The tower, with the tank on top, is between 150 and 200 feet high.

Building A was identified as the Chlorination Building, located under the water tank on an historic map of Babbitt (Hawthorne NAD c. 1945). It is a single-story, wood-framed building, with a low-sloped, shed roof covered with composition roofing material, either roll or shingle, overlaying wood slats. The open eaves are of moderate size, with a fascia board on the ends. Walls are clad with v-notch shiplap siding, with wood corner boards. The foundation is concrete and extends west under a pipe extending down from the center of the water tank. Fenestration is limited, and asymmetrical, consisting of two doors. Both doors are wood, one (northwest elevation) of which appears to be original, and repaired with plywood. The other, on the northeast elevation, has been replaced with plywood.

4.4.2 Sky View Academy

This building is located near the south center of the former town of Babbitt. The school property is now enclosed with high wood fencing, surrounding the buildings and play area, which has a basketball court. Asphalt-paved parking areas are present along the north and southeast sides of the property. The surrounding area has limited vegetation. According to Stephen Gustafson (Personal communication 2007), the Babbitt Elementary School was constructed in 1953, and used until 1985. In either 2005 or 2006, the property was sold to the Sky View Academy, a Christian private school,. At this time, the school was renovated, and additional buildings added to the complex.

The main building is a single-story, Contemporary School structure built on a rectangular plan, with an irregularity. The foundation is concrete, and the structure is concrete block, clad with stucco. The low-pitched shed roof is covered with corrugated sheet metal. Wood roof slats are exposed under

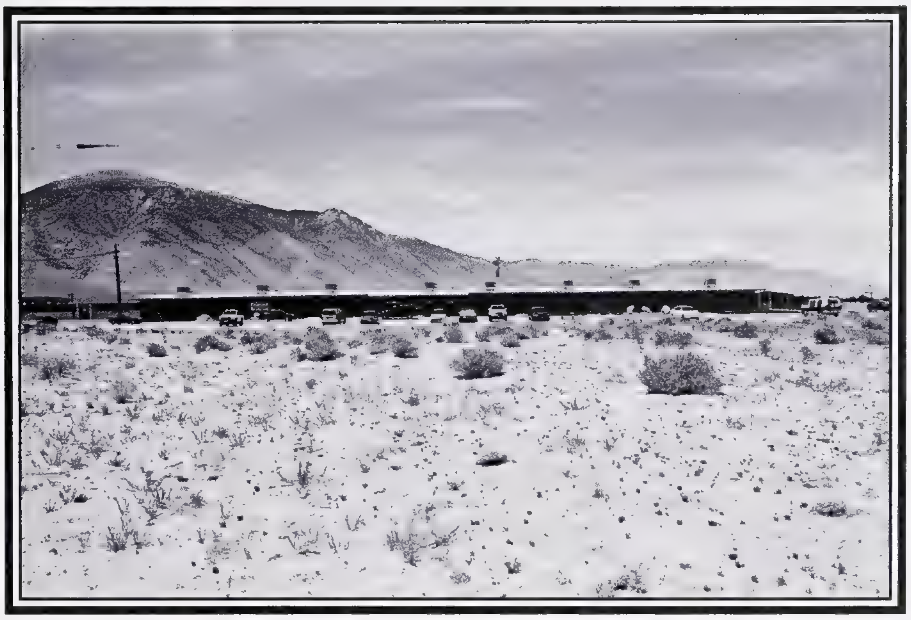


Figure 4.9 Sky View Academy, main building, east elevation.

the eaves, which are very wide and open. The roof beams are exposed, and tapered on the exterior. Fascia boards are present on the ends. The eaves are wider along the east elevation, providing shade over sidewalks along the sides of the building. There are no chimneys or flues. Eight new air conditioning units are present on the roof.

All the windows on the extension on the east elevation, and along the length of the west elevation, are modern aluminum. In the center of the extension on the east elevation is a metal door with a single light. On each side of the door are two vertical slide windows. A single vertical slide window occurs north and south of the extension. South of the window is a second metal door. There are no openings on the south or north elevations. On the northwest corner of the north elevation is a large circular stucco frame built into the wall, with a painting of the sky on the inside. There are approximately 30 windows present on the west elevation. These appear to be a mix of vertical slide, and possibly fixed. There are six metal doors with a single light, and one solid metal door.

Associated Building A is a modern, prefabricated, one-story building with T-1-11 siding. Other buildings include at least two dormitories on the north side of the main school building, an unknown building between them and the school, and at least two other buildings on the south side west of the Administration Building. All are prefabricated, and date between 2005 and 2007.

5.0 CULTURAL RESOURCES EVALUATIONS AND MANAGEMENT RECOMMENDATIONS

The sections entitled *1.4 Natural Setting*, and *2.0 Historic Context and Prehistoric and Historic Research Themes for the Bald Mountain Mining District*, contain the information necessary for sites observed during the field inventory to be considered for their National Register of Historic Places (NRHP) significance. Application of these research domains/themes to the federally mandated criteria of significance (36 CFR § 60.4, as below), along with an estimate of the site's integrity, determines archaeological site significance. The federal criteria are as follows (36 CFR § 60.4):

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association, and:
>
> a) That are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b) that are associated with the lives of persons significant in our past; or
>
> c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d) that have yielded, or may be likely to yield, information important in prehistory or history.

5.1 EVALUATIONS OF ISOLATED ARTIFACTS AND FEATURES

A total of 31 isolated artifacts (27 historic, four prehistoric), and 10 isolated historic features were observed and recorded during the field phase of the current cultural resources inventory. None of these isolated finds is unique or rare and none have the potential to provide significant data or additional research opportunities relevant to furthering our understanding of local or regional prehistory, ethnohistory, or history. Consequently, as is normal for isolated artifacts and features, it is recommended all these isolated finds are not-significant cultural resources, which are not eligible for nomination to the NRHP, under any of its four criteria.

5.2 EVALUATIONS OF ARCHAEOLOGICAL SITES

A total of 21 archaeological sites were encountered and recorded during the current cultural resources inventory (Table 5.1). These include 15 historic sites, five prehistoric sites, and one multi-component site. The sites have been evaluated below with respect to their significance and eligibility for nomination to the NRHP.

Table 5.1 Summary of Sites Located Within the Project Area, and NRHP Recommendations

Site Number 26Mn	Site Type & Description	Land Ownership	NRHP* Recomm.
1651	**Historic.** The Hawthorne Cemetery, dating from the early 1880s to the present	Mineral County	NS/NE
1652	**Historic.** Refuse scatter, with tin cans.	Mineral County	NS/NE
1653	**Historic.** Refuse scatter, with tin cans and glass.	Mineral County	NS/NE
1654	**Historic.** Refuse scatter, with tin cans.	Mineral County	NS/NE
1655	**Historic.** Refuse scatter, with tin cans, lumber, and asbestos shingles.	Mineral County	NS/NE
1656	**Prehistoric.** Lithic scatter, with flakes.	Mineral County	NS/NE
1657	**Historic.** Refuse scatter, with tin cans, glass, ceramics, household items, and animal bone.	Mineral County	NS/NE
1658	**Multi-Component:** **Prehistoric.** Lithic scatter, with flakes. **Historic.** Refuse scatter, with glass, and a nail.	Mineral County	NS/NE
1659	**Historic.** Refuse scatter, with wood fragments, tin cans, barrel hoops, glass, household items, and clothing.	Mineral County	NS/NE
1660	**Prehistoric.** Lithic scatter, with flakes, and a biface.	Mineral County	NS/NE
1661	**Historic.** Refuse scatter, with tin cans.	Mineral County	NS/NE
1662	**Prehistoric.** Lithic scatter, with flakes.	Mineral County	NS/NE
1663	**Historic.** Refuse scatter, with glass insulator fragments.	Mineral County	NS/NE
1664	**Prehistoric.** Lithic scatter, with flakes.	Mineral County	NS/NE
1665	**Historic.** Refuse scatter, with tin cans, glass, ceramics, and metal artifacts.	Mineral County	NS/NE
1666	**Prehistoric.** Lithic scatter, with flakes.	Mineral County	NS/NE

Site Number 26Mn	Site Type & Description	Land Ownership	NRHP* Recomm.
1667	**Historic.** Refuse scatter, with tin cans, ceramics, glass, a nail, and a button.	Mineral County	NS/NE
1668	**Historic.** Road segment	Mineral County	NS/NE
1669	**Historic.** The former community of Babbitt.	Mineral County	NS/NE
1670	**Historic.** The Hawthorne Airport	Mineral County	NS/NE
1671	**Historic.** The former Hawthorne Sewage Plant.	Mineral County	NS/NE

*NS: Not Significant; NE: Not Eligible.

5.2.1 Non-Significant Prehistoric Sites/Component

Sites 26Mn1656, 26Mn1658, 26Mn1660, 26Mn1662, 26Mn1664, and 26Mn1666, have prehistoric components. All these sites or components contain small prehistoric lithic scatters. These are not characterized by an abundance or diversity of prehistoric lithic artifacts; do not contain temporally diagnostic artifacts; have no prehistoric features; and appear entirely confined to the present-day surface. Consequently, these sites do not contain data addressing the prehistoric research themes and associated questions (*Section 2.1*) developed for the locality or region. Therefore, all these prehistoric sites/component are recommended as not significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, d).

5.2.2 Non-Significant Historic Sites/Component

Historic Refuse Scatters. Eleven of the sites/component are historic refuse scatters: 26Mn1652, 26Mn1653, 26Mn1654, 26Mn1655, 26Mn1657, 26Mn1658, 26Mn1659, 26Mn1661, 26Mn1663, 26Mn1665, and 26Mn1667. Each contains variable numbers of tin cans, bottle glass fragments, ceramic sherds, building materials, household items, metal artifacts, and/or animal bone. The historic artifacts at these sites, which often also contain modern items, have a collective date range of about the 1890s to the 1980s. None of these sites have associated features. While these sites probably are related to the towns of Babbitt and Hawthorne, and/or possibly U. S. Highway 95, all of which occur less than one mile distant, no specific historic event(s) can be definitively assigned to them. The sites cannot be associated with the life of an important historic figure(s), nor do they contain outstanding engineering features. These sites are not identified on historic maps or indices of the area. Based on their lack of contextual information, their surficial nature, the absence of associated features, and the generally limited numbers and diversity of artifacts present at the sites, these sites do not have the potential to address historic research themes or associated questions developed for the region (*Section 2.3*). Therefore, all these sites are recommended as not-significant and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

Historic Road. Site 26Mn1668 is a segment of an historic-aged road extending between Walker Lake and Hawthorne, which appears on historic maps dating as early as 1921. The road segment's integrity has been severely compromised by paving on its northern and southern portions, and by construction of runways for the Hawthorne Municipal Airport, which bisects the road. Only one small portion remains relatively undisturbed. This road is not mentioned in the historic record for the area as an important transportation route, and is not directly associated with an important historic figure(s). The road does not contain outstanding engineering features, and does not have the potential to yield information addressing historic research themes and associated questions developed for the region (*Section 2.3*). Therefore, this road segment is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

Babbitt. The historic town of Babbitt, 26Mn1669, is an element of the historic and modern Hawthorne Naval Ammunition Depot/Army Ammunition Plant (Koval 1989; Rebecca Palmer, personal communication 2007). The Naval Ammunition Depot has been nominated as a significant historic district under NRHP criteria a and c, with National, Statewide, and Local significance. Under Criterion a, the Depot played a major role in World War II as *the* ammunition depot for the Pacific War. Additionally, it is the oldest 20th century military reservation in Nevada and it has had a significant role in the development of the town of Hawthorne. Koval (1989:33) suggests two periods of significance for the District. These include the period during which the depot was built (1928-1931) and during World War II (1940-1945). The Depot is significant under criterion c as a military district, built for 'state-of-the-art' ammunition storage in the late 1920s. It is the largest depot of its kind in the world; it has a unique landscape; and it contains the largest and most complete collection of twentieth century military cultural resources in the state of Nevada.

In the early 1940s, the town of Babbitt was built to house civilian depot employees and their families during World War II. It is recommended as a contributing element to the Hawthorne Naval Ammunition Depot Historic District for its role in the development of that District during its second period of significance, from 1940-1945 under Criterion a. The town of Babbitt also is recommended as a significant resource, eligible for nomination to the National Register, as an individual entity, outside the context of the Hawthorne Naval Ammunition Depot Historic District. Babbitt was a federally-sanctioned, racially-segregated community, whose segregation persisted informally into the 1970s, after most of the town was abandoned. Babbitt's development as a racially-segregated community had implications for the development of the depot, for the local community of Hawthorne, and the state of Nevada, especially as regards the Civil Rights Movement of the 1950s-1970s.

Today, very little remains of Babbitt. In 1987, the last residents left the town. Since the 1970s to the present, all its buildings have been razed, removed, or significantly altered. While some aspects of Babbitt, such as streets, curbs, and concrete foundations, have retained their integrity of location, the majority of the buildings have not. Removal of the duplexes, and loss of the sycamore and cottonwood trees that once lined the residential streets, has produced a loss of the *sense* of Babbitt as a community (i.e., its integrity of feeling, setting, and association). Additionally, removal of many of the buildings, and significant alterations to those few still remaining, have significantly compromised the integrity of workmanship, design, and materials. Due to these impacts, and the subsequent loss of all aspects of its integrity, Babbitt is recommended as no longer significant and not eligible for nomination to the National Register of Historic Places (NRHP), either as an archaeological site, or as a contributing element to the Hawthorne Naval Ammunition Depot Historic District.

The Hawthorne Cemetery. This site, 26Mn1651, is an historic-aged cemetery, initially dating from the 1880s, which is still in use. This site contains the graves of persons from Hawthorne, Nevada, dating from the community's beginnings to the present day, representing over 100 years of use. However, this cemetery is not associated with any specific local or national events or important individuals (NRHP criteria a and b). The funerary materials present do not represent distinctive characteristics of a type, period, method, style, or master artisan (criterion c). Since Hawthorne's history is well-documented, and because persons buried in the cemetery are likely represented in various iterations of the Nevada State Census, potentially providing detailed demographic data for Hawthorne and the state of Nevada, the Hawthorne Cemetery offers little additional substantive information that would provide significant research potential addressing historic research themes and associated questions developed for the region (criterion d). Detailed consideration of specific criteria for evaluation and registering of cemeteries as outlined by the National Register Staff (1997:34-36) and Potter and Boland (1992), has led to the recommendation that the Hawthorne Cemetery is not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP).

The Hawthorne Airport. Originally constructed by the Civilian Conservation Corps (CCC) during the 1930s (Kolvet and Ford 2006) as two dirt runways, this site (26Mn1670) originally was part of the Naval Ammunition Depot (NAD). During the early 1980s, it became the Hawthorne Municipal

Airport at about the same time that the Babbitt town site was being abandoned and dedicated to Mineral County. The two historic dirt runways include a north/south runway that is approximately 7,000 ft long and 150 ft wide. The second dirt runway is oriented east/west and is about 4,900 ft long and 220 ft wide. These historic runways are no longer in use, and are overlain by a modern paved runway located to the south. Several nearby refuse scatters could not definitively be associated with the airport.

The modern Hawthorne Municipal Airport covers approximately 47 acres, and contains modern metal and wood airport buildings in addition to an historic single-story, wood frame Vernacular Frame building constructed as a duplex in Babbitt about 1945. It was moved to the airport for use by the Civil Air Patrol (CAP) in the early 1980s.

Other than the criterion of location, all the criteria of historic integrity have been lost by the airport including design, setting, materials, workmanship, feeling, and association. The historic runways are covered in part by a modern runway, the nearby town of Babbitt has been almost entirely removed, any historic buildings associated with the original (historic) airport have been replaced by modern metal and wood modular structures, the one historic building in association with the airport (the CAP building) was moved to its present location from Babbitt during the 1980s, and no historic refuse scatters have been identified that might provide information pertaining to historic lifeways. As a consequence, nothing really remains intact at the airport that might provide answers to research questions as posed in the historic context in *Section 2.3* above. Therefore, it is recommended that this airport site offers little additional substantive information that would provide significant research potential addressing historic research themes and associated questions developed for the region, which, with the lack of integrity, has led to the recommendation that the Hawthorne Municipal Airport (26Mn1670) is not-significant, and not eligible for nomination to the NRHP.

The Hawthorne Sewage Facility. Themes relevant to the evaluation of this historic-aged site (26Mn1671) include *Architecture* and *Land Usage (Townsite Development and City Planning).* Its geographic limit is at the local level, the community of Hawthorne, and the current project area. The associated chronological period is the World War II era, the early 1940s. Alterations made to the sewage treatment facility are limited to addition of wooden structures providing shelter for the pump valves, and the valve pit. These appear to have been added during the same period. The site's integrity of location remains unchanged, though its setting and feeling have been affected by development along the U.S. 95 Bypass that lies south of the facility. Currently, the facility is no longer in use. As a safety precaution, it is enclosed by a high wire and, atop that, a barbed wire fence.

With regard to the site's significance, the facility has no known association with significant events in the City of Hawthorne (criterion a) or significant association with the lives of persons of importance to the community, state or nation (criterion b). In general, it is a very simple, mundane, non-distinctive example of a World War II Era to mid 20th century infrastructural engineering work. The method of construction is common, does not require artistic sensibility, and the structure does not possess high artistic value (criterion c). The building is unlikely to yield additional research opportunities for furthering an understanding of historical developments or neighborhood architecture on a local, regional or national level (criterion d). Consequently, it is recommended that this sewage treatment facility is not-significant and not eligible for nomination to the National Register of Historic Places (NRHP).

5.3 MANAGEMENT RECOMMENDATIONS

5.3.1 Isolated Artifacts

It is recommended that the 31 isolated artifacts and the 10 isolated historic features are not-significant, and not eligible for nomination to the NRHP. Therefore, it is recommended all these isolated finds require no further management consideration prior to implementation of the proposed development project.

5.3.2 Not-Significant Prehistoric and Historic Archaeological Sites/Components

It is recommended that the six prehistoric archaeological sites/component 26Mn1656, 26Mn1658, 26Mn1660, 26Mn1662, 26Mn1664, and 26Mn1666, and the 16 historic archaeological sites/component 26Mn1651, 26Mn1652, 26Mn1653, 26Mn1654, 26Mn1655, 26Mn1657, 26Mn1658, 26Mn1659, 26Mn1661, 26Mn1663, 26Mn1665, 26Mn1667, 26Mn1668, 26Mn1669, 26Mn1670, and 26Mn1671, are not-significant, and not eligible for nomination to the NRHP. Therefore, it is recommended all the prehistoric sites and the single prehistoric component, and all the historic sites and the single historic component, require no further management consideration prior to implementation of the proposed development project.

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APPENDICES

APPENDIX A

Photograph Logs

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **Color** **ISO:** 200 **Roll #:** 1 **No. Exp:** 36 **Camera #:** 3

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
5	KEC-590		06/19/07	---	Roll Identification
6	26Mn1651 (KEC-590-1)		06/19/07	320°	Site overview
7	26Mn1651 (KEC-590-1)		06/19/07	345°	Site overview
8	26Mn1651 (KEC-590-1)	Feature 1	06/19/07	300°	Overview
9	26Mn1651 (KEC-590-1)		06/19/07	290°	Children's burial area
10	26Mn1651 (KEC-590-1)		06/19/07	315°	Older burial grounds
11	26Mn1651 (KEC-590-1)		06/19/07	Detail	"FBC" Knights of Pythias grave marker
12	26Mn1651 (KEC-590-1)		06/19/07	34°	Unmarked graves toward center of cemetery
13	26Mn1651 (KEC-590-1)	Feature 2	06/19/07	270°	Pioneers' wooden grave markers
14	26Mn1651 (KEC-590-1)		06/19/07	140°	Children's burial area
15	26Mn1651 (KEC-590-1)		06/19/07	302°	1886 gravestone
16	26Mn1651 (KEC-590-1)	Feature 2	06/19/07	305°	"The Holman Clan" grave markers

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **Color** **ISO:** 200 **Roll #:** 2 **No. Exp:** 36 **Camera #:**

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
1	KEC-590		06/19/07	---	Roll Identification
2	KEC-590		06/19/07	220°	Building, northwest terminal
3	Isolate 6		06/19/07	Detail	Metal
4	KEC-590		06/19/07	280°	West facing runway
5	KEC-590		06/19/07	300° W	Fuel farm (Pacific Pride Commercial Fueling)
6			06/19/07	160°	Not cultural
7	KEC-590		06/19/07	120°	Modern viewscape
8	KEC-590		06/19/07	180°	Modern viewscape
9	KEC-590		06/19/07	20°	Modern viewscape
10	26Mn1653 (KEC-590-4)		06/19/07	240°	Site overview
11	26Mn1653 (KEC-590-4)		06/19/07	240°	Glass 1
12	KEC-590		06/19/07	30°	Unpaved runway
13	26Mn1653 (KEC-590-4)		06/19/07	300°	Airport runway
14	26Mn1653 (KEC-590-4)		06/19/07	Detail	Tin Can 1, “Dinty Moore”
15	26Mn1653 (KEC-590-4)		06/19/07	Detail	Tin Can 1, “Dinty Moore”
16	26Mn1653 (KEC-590-4)		06/19/07	Detail	Tin Can 2, Raspberry jam can “Tea Garden Products”
17	26Mn1653 (KEC-590-4)		06/19/07	Detail	Example flora
18	Isolate 14		06/19/07	Detail	Doll head
19	Isolate 14		06/19/07	Detail	Doll head
20	26Mn1656 (KEC-590-8)		06/20/07	300°	Site overview
21	KEC-590		06/20/07	300°	Runway, work recent
22	26Mn1658 (KEC-590-10)		06/20/07	270°	Site overview (prehistoric component)
23	26Mn1658 (KEC-590-10)		06/20/07	340°	Site overview (historic component)

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **Color** **ISO:** 200 **Roll #:** 2 **No. Exp:** 36 **Camera #:**

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
24	26Mn1661 (KEC-590-14)		06/20/07	330°	Site overview
25	26Mn1661 (KEC-590-14)		06/20/07	Detail	Tin Can 1, Upright pocket tobacco tin
26	26Mn1661 (KEC-590-14)		06/20/07	Detail	Tin Can 2, hole-in-cap
27	26Mn1661 (KEC-590-14)		06/20/07	Detail	Tin Can 3, sardine can
28	26Mn1662 (KEC-590-16)		06/20/07	240°	Site overview
29	26Mn1662 (KEC-590-16)		06/20/07	Detail	Flake
30	26Mn1663 (KEC-590-18)		06/20/07	0°	Site overview
31	26Mn1663 (KEC-590-18)		06/20/07	Detail	Glass 1, “Hemingray-45"
32	26Mn1663 (KEC-590-18)		06/20/07	Detail	Glass 2
33	26Mn1663 (KEC-590-18)		06/20/07	Detail	Glass 3
34	Isolate 26		06/20/07	Detail	Can mouth
35	26Mn1664 (KEC-590-20)		06/20/07	350°	Site overview
36	Isolate 28		06/20/07	Detail	Can mouth with threaded top

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **Color** **ISO:** 200 **Roll #:** 3 **No. Exp:** 36 **Camera #:**

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
1	KEC-590		06/20/07	---	Roll Identification
2	26Mn1652 (KEC-590-3)		06/20/07	342°	Site overview
3	26Mn1654 (KEC-590-5)		06/20/07	258°	Site overview
4	KEC-590		06/20/07	30°	Airport runway
5	Isolate 5		06/20/07	Detail	Avon bottle glass
6	KEC-590		06/20/07		Flora
7	KEC-590		06/20/07		Flora
8	26Mn1655 (KEC-590-7)		06/20/07	10°	Site overview
9	26Mn1655 (KEC-590-7)		06/20/07	Detail	Tin Can 1, fuel can
10	Isolate 15		06/20/07	90°	Foundation
11	Isolate 17		06/20/07	90°	Foundation
12	Isolate 17		06/20/07	50°	Foundation
13	Isolate 19		06/20/07	Detail	O'Brian can
14	KEC-590		06/20/07	Detail	Runway light
15	KEC-590		06/20/07	260°	Runway
16	26Mn1657 (KEC-590-9)		06/20/07	25°	Site overview
17	26Mn1657 (KEC-590-9)		06/20/07	Detail	Finish 1 (aqua glass)
18	26Mn1657 (KEC-590-9)		06/20/07	Detail	Finish 2 (amethyst glass)
19	26Mn1657 (KEC-590-9)		06/20/07	Detail	Egg separator
20	26Mn1657 (KEC-590-9)		06/20/07	Detail	Rake
21	KEC-590		06/20/07	335°	Historic runway
22	26Mn1659 (KEC-590-11)		06/20/07	70°	Site overview
23	26Mn1659 (KEC-590-11)		06/20/07	Detail	Button

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **Color** **ISO:** 200 **Roll #:** 3 **No. Exp:** 36 **Camera #:**

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
24	26Mn1659 (KEC-590-11)		06/20/07	Detail	Buckle
25	26Mn1659 (KEC-590-11)		06/20/07	Detail	Glass tray
26	26Mn1659 (KEC-590-11)		06/20/07	Detail	5-gallon glass water jug
27	Isolate 27		06/20/07	Detail	Rock pile
28	Isolate 29		06/20/07	Detail	Crater, bomb style
29	KEC-590		06/21/07	Detail	Flora, mushroom
30	KEC-590		06/21/07	264°	Historic road
31	KEC-590		06/21/07	0°	Runway
32	KEC-590		06/21/07	300°	Modern weather station
33	26Mn1660 (KEC-590-13)		06/21/07	Detail	Biface 1, side A
34	26Mn1660 (KEC-590-13)		06/21/07	Detail	Biface 1, side B
35	26Mn1660 (KEC-590-13)		06/21/07	90°	Site overview
36	KEC-590		06/21/07	Detail	1928 cadastral

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **Color** **ISO:** 200 **Roll #:** 4 **No. Exp:** 36 **Camera #:**

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
1	KEC-590		06/21/07	---	Roll Identification
2	26Mn1665 (KEC-590-22)		06/21/07	Detail	Metal 1, chest frame
3	26Mn1665 (KEC-590-22)		06/21/07	Detail	Glass 1
4	26Mn1665 (KEC-590-22)		06/21/07	84°	Site overview
5	26Mn1665 (KEC-590-22)		06/21/07	Detail	Metal 2, metal gear
6	26Mn1665 (KEC-590-22)		06/21/07	Detail	Tin can 1
7	Isolate 34		06/21/07	Detail	Georgia green "Coca-Cola" bottle fragments with applied color label
8	Isolate 34		06/21/07	Detail	Georgia green "Coca-Cola" bottle fragments with applied color label
9	26Mn1666 (KEC-590-24)		06/21/07	329°	Flake scatter site overview
10	Isolate 42		06/21/07	Detail	Button
11	26Mn1667 (KEC-590-26)		06/21/07	316°	Site overview
12	26Mn1667 (KEC-590-26)		06/21/07	Detail	Shell button, side 1
13	26Mn1667 (KEC-590-26)		06/21/07	Detail	Shell button, side 2
14	26Mn1667 (KEC-590-26)		06/21/07	Detail	Tin Can 1, "Log Cabin" syrup container
15	26Mn1668 (KEC-590-28)		06/21/07	176°	North end of road, east of project site
16	26Mn1668 (KEC-590-28)		06/21/07	353°	Road at east side of cemetery
17	26Mn1668 (KEC-590-28)		06/21/07	340°	Extension of above road
18	26Mn1669 (KEC-590-30)		06/21/07	300°	Road 1, Babbitt
19	26Mn1669 (KEC-590-30)		06/21/07	210°	Road 2, Babbitt

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **Color** **ISO:** 200 **Roll #:** 4 **No. Exp:** 36 **Camera #:**

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
20	26Mn1669 (KEC-590-30)		06/21/07	120°	Road 3, Babbitt
21	26Mn1669 (KEC-590-30)		06/21/07	40°	Road 6, Babbitt
22	26Mn1669 (KEC-590-30)		06/21/07	32°	Road 22, Babbitt
23	26Mn1669 (KEC-590-30)		06/21/07	211°	Road 24, Babbitt
24	26Mn1669 (KEC-590-30)		06/21/07	37°	Road 34, Babbitt
25	26Mn1669 (KEC-590-30)		06/21/07	37°	Road 38, Babbitt
26	26Mn1669 (KEC-590-30)		06/21/07	217°	Road 40, Babbitt
27	26Mn1669 (KEC-590-30)		06/21/07	317°	Road 15, Babbitt
28	26Mn1669 (KEC-590-30)		06/21/07	38°	Road 46, Babbitt
29	26Mn1669 (KEC-590-30)		06/21/07	316°	Road 23, Babbitt
30	26Mn1669 (KEC-590-30)		06/22/07	278°	Road 31, Babbitt
31	26Mn1669 (KEC-590-30)		06/22/07	41°	Road 33, Babbitt
32	26Mn1669 (KEC-590-30)		06/22/07	331°	Road 37, Babbitt
33	26Mn1669 (KEC-590-30)		06/22/07	320°	Municipal park, inside project area
34	26Mn1669 (KEC-590-30)		06/22/07	310°	Clinics, inside project area
35	26Mn1669 (KEC-590-30)		06/22/07	312°	Truck stop, in project area
36	26Mn1669 (KEC-590-30)		06/22/07	339°	Building foundation
E	26Mn1669 (KEC-590-30)		06/22/07	336°	Possible looter

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **Color** **ISO:** 200 **Roll #:** 5 **No. Exp:** 36 **Camera #:**

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
1	KEC-590		06/21/07	---	Roll Identification
2	KEC-590		06/21/07	Detail	Cadastral
3	KEC-590		06/21/07	Detail	Fauna, horny toad (horned lizard)
4	26Mn1669 (KEC-590-30)		06/21/07	216°	"11th Street"
5	26Mn1669 (KEC-590-30)		06/21/07	Detail	Walkway
6	26Mn1669 (KEC-590-30)		06/21/07	Detail	Water main access
7	26Mn1669 (KEC-590-30)		06/21/07	130°	Walkway
8	26Mn1669 (KEC-590-30)		06/21/07	Detail	Water main access
9	26Mn1669 (KEC-590-30)		06/21/07	Detail	Suspender buckle
10	26Mn1669 (KEC-590-30)		06/21/07	Detail	Water drain cover
11	26Mn1669 (KEC-590-30)		06/21/07	Detail	Tricycle seat
12	26Mn1669 (KEC-590-30)		06/22/07	Detail	Utility access
13	26Mn1669 (KEC-590-30)		06/22/07	160°	Foundations
14	26Mn1669 (KEC-590-30)		06/22/07	360°	Foundations
15	26Mn1669 (KEC-590-30)		06/22/07	25°	Foundations
16	26Mn1669 (KEC-590-30)		06/22/07	Detail	Floor plan of duplex
17	26Mn1669 (KEC-590-30)		06/22/07	Detail	Tile on foundation
18	26Mn1669 (KEC-590-30)		06/22/07	Detail	Broken area of bathroom
19	26Mn1669 (KEC-590-30)		06/22/07	300°	Alley way
20	26Mn1669 (KEC-590-30)		06/22/07	34°	Pole line

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **Color** **ISO:** 200 **Roll #:** 5 **No. Exp:** 36 **Camera #:**

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
21	26Mn1669 (KEC-590-30)		06/22/07	228°	View scape
22	26Mn1669 (KEC-590-30)		06/22/07	Detail	Wide walkway (front entrance)
23	26Mn1669 (KEC-590-30)		06/22/07	Detail	Small walkway (side entrance to kitchen)
24	26Mn1669 (KEC-590-30)		06/22/07	120°	Foundation with water tower
25	26Mn1669 (KEC-590-30)		06/22/07	132°	Demolished curb fragments
26	26Mn1669 (KEC-590-30)		06/22/07	160°	Bowling alley north
27	26Mn1669 (KEC-590-30)		06/22/07	180°	Northeast primary elevations
28	26Mn1669 (KEC-590-30)		06/22/07	206°	West wing
29	26Mn1669 (KEC-590-30)		06/22/07	116°	Interior
30	26Mn1669 (KEC-590-30)		06/22/07	208°	East wing
31	26Mn1669 (KEC-590-30)		06/22/07	208°	Room
32	26Mn1669 (KEC-590-30)		06/22/07	Detail	Men’s restroom
33	26Mn1669 (KEC-590-30)		06/22/07	Detail	Men’s restroom

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **Color** **ISO:** 200 **Roll #:** 6 **No. Exp:** 36 **Camera #:**

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
1	KEC-590		06/22/07	---	Roll Identification
2	26Mn1669 (KEC-590-30)		06/22/07	58°	Structures at southeast section of Babbitt
3	26Mn1669 (KEC-590-30)		06/22/07	Detail	"Farr Better" bottle glass
4	26Mn1669 (KEC-590-30)		06/22/07	Detail	Spark plug
5	26Mn1669 (KEC-590-30)		06/22/07	268°	East of Babbitt
6	26Mn1669 (KEC-590-30)		06/22/07	Detail	Blue cobalt
7	26Mn1669 (KEC-590-30)		06/22/07	220°	Bowling alley foundation
8	26Mn1669 (KEC-590-30)		06/22/07	40°	Bowling alley "bar"
9	26Mn1669 (KEC-590-30)		06/22/07	356°	Foundation to the east of bowling alley
10	26Mn1669 (KEC-590-30)		06/22/07	Detail	Detail of tile on asphalt
11	26Mn1669 (KEC-590-30)		06/22/07	356°	Foundation to the east of bowling alley
12	26Mn1669 (KEC-590-30)		06/22/07	304°	Detail of asphalt tile
13	26Mn1669 (KEC-590-30)		06/22/07	28°	View from bowling alley
14	KEC-590		06/22/07	90°	Out of project area
15	KEC-590		06/22/07	100°	Out of project area
16	KEC-590		06/22/07	35°	Out of project area
17	KEC-590		06/22/07	34°	Out of project area
18	KEC-590		06/22/07		Out of project area

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **Digital** **Roll #:** 7 **No. Exp:** 14 **Camera #:** Pentax Opio 55

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
1		4489	06/19/07	---	Roll Identification
2	KEC-590	4490	06/19/07	340°	Wood building south and east elevations
3	KEC-590	4491	06/19/07	340°	Wood building south and east elevations
4	KEC-590	4492	06/19/07	Detail	Possible concrete water pipe
5	KEC-590	4493	06/19/07	315°	Wood building south and east elevations on concrete structure
6	KEC-590	4494	06/19/07	130°	Low level entry-way, north and west elevations
7	26Mn1669 (KEC-590-30)	4495	06/19/07	365°	Water tower
8	26Mn1669 (KEC-590-30)	4496	06/19/07	84°	Water tower base
9	26Mn1669 (KEC-590-30)	4497	06/19/07	68°	Water tower base
10	26Mn1669 (KEC-590-30)	4498	06/19/07	26°	Water tower base
11	26Mn1669 (KEC-590-30)	4499	06/19/07	352°	Water tower base with pet burials
12	26Mn1669 (KEC-590-30)	4500	06/19/07	274°	Water tower base
13	26Mn1669 (KEC-590-30)	4501	06/19/07	274°	Water tower
14	26Mn1669 (KEC-590-30)	4502	06/19/07	360°	Sky View Christian Academy, remodeled stucco
15	26Mn1669 (KEC-590-30)	4503	06/19/07	20°	Sky View Christian Academy, remodeled stucco

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **B/W** **ISO:** 200 **Roll #:** 8 **No. Exp:** **Camera #:**

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
4			06/29/07	---	Roll Identification
5	Water Tower (S-1)		06/29/07	220°	Northeast elevation; Associated Building A (chlorination), northeast elevation
6	Water Tower (S-1)		06/29/07	220°	Northeast elevation; Associated Building A (chlorination), northeast elevation
7	Water Tower (S-1)		06/29/07	304°	Associated Building A (chlorination), southeast elevation
8	Water Tower (S-1)		06/29/07	355°	Associated Building A (chlorination), southwest and southeast elevations
9	Water Tower (S-1)		06/29/07	176°	Associated Building A (chlorination), northeast and northwest elevations
10	Water Tower (S-1)		06/29/07	300°	The Kennedy Valve, south side
11	Water Tower (S-1)		06/29/07	65°	Associated Building A (chlorination), valve, and tower pipe, northwest and southwest elevations
12	Water Tower (S-1)		06/29/07	0°	Steel support, west leg, *Illinois & USA*
13	Water Tower (S-1)		06/29/07	Detail	From south corner looking up, underside
14	Water Tower (S-1)		06/29/07	0°	Lower portion of tower from south corner
15	Water Tower (S-1)		06/29/07	11°	Southwest view; Associated Building A (chlorination), southwest elevation
16			06/29/07	96°	Viewscape to east, with Safeway, Winner's Corner, south elevation, and McDonald's sign
17			06/29/07	348°	Viewscape to northwest
18			06/29/07	48°	Viewscape to northeast, U.S. 95
19	Bowling Alley	Feature 1	06/29/07	359°	Foundation, rear – south and east elevations
20	Bowling Alley	Feature 1	06/29/07	359°	Foundation, rear – south and east elevations
21	Bowling Alley	Feature 1	06/29/07	196°	Foundation, front - north and west elevations
22	Sky View Academy (S-2)		06/29/07	359°	Main Building, south and east elevations
23	Sky View Academy (S-2)		06/29/07	359°	Main Building, south and east elevations
24	Sky View Academy (S-2)		06/29/07	231°	Associated Building A (Administration), south and east elevations
25	Sky View Academy (S-2)		06/29/07	308°	Main Building, east elevation

KEC - PHOTOGRAPH RECORD

Project No: KEC-590 **B/W** **ISO:** 200 **Roll #:** 9 **No. Exp:** **Camera #:**

Photo No.	Site Designation	Provenience	Date of Photo	Direction Facing	Comments
3			06/29/07	---	Roll Identification
4	Sky View Academy (S-2)		06/29/07	250°	Main Building, east and north elevations
5	Sky View Academy (S-2)		06/29/07	300°	Ancillary Buildings (north), east and north elevations
6	Sky View Academy (S-2)		06/29/07	216°	Main Building and Ancillary, north and west elevations
7	Sky View Academy (S-2)	Compound	06/29/07	220°	Main Building, north elevation; Ancillary Buildings, north elevation
8	Sky View Academy (S-2)		06/29/07	194°	Main Building and Ancillary, north and west elevations
9			06/29/07	59°	Viewscape from front of Main Building
10			06/29/07	98°	Viewscape from front of Main Building
11	CAP Duplex (S-3)		06/29/07	260°	East elevation, primary
12	CAP Duplex (S-3)		06/29/07	260°	East elevation, primary
13	CAP Duplex (S-3)		06/29/07	175°	North elevation
14	CAP Duplex (S-3)		06/29/07	142°	North and west elevations
15	CAP Duplex (S-3)		06/29/07	18°	West elevation
16	CAP Duplex (S-3)		06/29/07	355°	South elevation
17	CAP Duplex (S-3)		06/29/07	Detail	CPA sign
18	CAP Duplex (S-3)		06/29/07	318°	South and east elevations
19	CAP Duplex (S-3)		06/29/07	104°	Context view
20			06/29/07	174°	Northwest corner viewscape
21			06/29/07	234°	Northwest corner viewscape
22	CAP Duplex (S-3)		06/29/07	290°	Context view

APPENDIX B

Hawthorne Army Ammunition Plant - Babbitt Housing Area by M. Molyneaux

Hawthorne Army Ammunition Plant - Babbitt Housing Area

Introduction

The Babbitt Housing Area, tucked between the far-western Nevada town of Hawthorne and the Industrial and Personnel Area of the sprawling Hawthorne Army Ammunition Plant (HAAP), provided shelter and amenities for hundreds of defense employees and their families who came to work at the ammunition plant during World War II.

Originally established as Naval Ammunition Depot (NAD) Hawthorne in 1930, the depot experienced tremendous expansion in both its mission and its facilities beginning in 1939, when the threat of world war prompted the United States to produce and stockpile armaments in earnest. When its expansion was completed in the early years of World War II, NAD Hawthorne was the largest ammunition depot in the world (The Rocket, August 1962), extending over 317 square miles of Nevada desert valley. At the same time, NAD Hawthorne's mission was greatly enhanced from its pre-war charge of storing, servicing and issuing ammunition, to wartime duties that included cast-loading munitions and demilitarizing and renovating rockets, mines, and depth charges (Hawthorne NAD, 1976: 8).

The enormous tasks of constructing and operating the enlarged facility during the national emergency required hundreds of new workers, most of whom were recruited from outside sparsely-populated Mineral County, Nevada and who therefore needed housing that was not available in the small hamlet of Hawthorne. Recognizing the housing shortage, the Navy embarked upon a "Low-Cost Defense Housing" project consisting of 425 duplexes flanking a central community complex, named Babbitt Court after an early depot commander.

Babbitt quickly grew into a self-sustaining residential community with its own retail and grocery stores, personal services, recreation areas and public buildings.

Among the thousands of defense workers who came to live in Babbitt during the war were dozens of black families, many of whom were recruited from the rural south to become Hawthorne's first permanent black settlers. Although they initially endured segregation in housing and community facilities at Babbitt and in restaurants and other social establishments in nearby Hawthorne, many of the early black families persevered through protest and resistance until such strictures were removed and Babbitt was integrated.

Although the first Babbitt duplex units were classed as "semi-permanent" and "demountable" structures that could be moved to new locations as warranted, Babbitt remained in use following the war and throughout the Korean and Vietnam conflicts of the 1950s and 1960s. In the post-Vietnam era, as the depot reverted to an ordnance maintenance and storage facility and as longtime residents moved away, the need for government housing diminished and the complex was declared "surplus."

Today, many of the Babbitt houses have been moved to Hawthorne and elsewhere throughout Nevada and only a handful of the dwellings remain scattered amid the dead Cottonwood and Sycamore trees that once shaded its residential streets. Of the once-bustling commercial center, only the bowling alley is still in use, while the abandoned stores, shops and offices of Babbitt Court fall into greater disrepair with each passing year. In a very real sense, Babbitt has become another Nevada ghost town not unlike the mining towns of an earlier era whose fortunes were tied to a strike that boomed and then played out.

Hawthorne, Nevada

The history of the Babbitt Housing Area is closely linked with the development of the nearby community of Hawthorne, Nevada. Hawthorne's history was characterized by erratic periods of growth and decline before the establishment of the naval ammunition depot two miles north of town in 1930. Originally part of Esmeralda County, Hawthorne was founded in 1881 by organizers of the Carson & Colorado (C&C) Railroad who modeled the one-square mile town after Sacramento, California. Hawthorne was intended as a water stop and repair station for the railroads that serviced mining operations in the general vicinity. The railroad company began selling lots on April 14, 1881, but for the most part, town development remained tied to the C&C and most of the initial construction projects were railroad-related. They included a depot, freight depot, repair shops and other service facilities for what was, at least temporarily, the "southern terminus" of the rail line. Thus, while Hawthorne served as a link between mining areas, it was distinguished from many other Nevada towns of the era whose existence depended solely on mining.

When the mines played out in the Esmeralda County seat of Aurora, leaving it a virtual ghost town in 1883, Hawthorne became the new center of county government. As county seat, Hawthorne's population grew steadily from 337 in 1890, to 436 in 1900. The future of the town looked promising until the Southern Pacific Railroad acquired the C&C railroad in 1900 and set up a new station called Thorne on the east side of Lake Walker, about seven miles northeast of Hawthorne. At the same time, the Southern Pacific established the town of Mina as its terminal and all the railroad shops and related facilities were moved to the new terminal. Hawthorne's population and importance declined as a result and in 1907, the county seat was transferred from Hawthorne to the wealthy mining camp of Goldfield. Although a number of mining strikes were made around Hawthorne, the town continued to decline until the Lucky Boy silver mine strike of 1906. Hawthorne became the trading center for the Lucky Boy and as a consequence, its 1910 population increased slightly to 471.

In 1911, the Nevada legislature divided Esmeralda County into two counties and Hawthorne became the seat of newly-created Mineral County, formerly the northern half of Esmeralda County. Little resulted from the designation, however, and by 1920 Hawthorne's population had dropped to 244 residents, while Mina's population had increased to 680. In addition to the population decline, a disastrous fire in 1926 wiped out most of Hawthorne's business district as well as several residences. Hawthorne's prospects appeared bleak when another fire in a New Jersey ammunition depot offered the town a new opportunity for life.

NAD Hawthorne

Ironically, Hawthorne's tiny population and isolated location in the vast Nevada desert appealed to United States naval officials scouting a site for a new ammunition depot prompted by a disaster at the Navy's Lake Denmark, New Jersey facility, in 1926. The Lake Denmark ammunition depot was filled to the "absolute limit of safety" with ammunition remaining from World War I when, during an electrical storm, a fire broke out in one of the magazines. The fire triggered a series of explosions, which in turn ignited other fires that ripped through smokeless-powder magazines, shell houses, and service buildings in the week that followed (U.S. Bureau of Yards and Docks, 1947:324). When the debris settled, more than 50 people were dead, nearly 200 more were injured, and all the buildings at the station were damaged or completely destroyed (Hawthorne NAD, 1976:5; Koval 1990: 32).

The Lake Denmark explosion prompted intense investigations that led the government to exact new safety standards with an emphasis on the wide dispersal of storage sites. Existing ammunition storage facilities were revised according to the new guidelines, but new facilities were needed, as well. As some contemporary newspapers put it, the site for such a hazardous installation should be "hidden somewhere in the wastelands" (Reeser, 1985: 8). In addition, the Navy was determined to establish an ammunition depot to service its west coast activities. Numerous locations in California and Nevada were suggested, but through the efforts of Nevada's U.S. Senator Tasker L. Oddie, tiny Hawthorne, surrounded by an almost unlimited expanse of Nevada desert, was selected in 1928 (Reeser, 1985: 8). NAD Hawthorne became the first naval ammunition depot designed in accordance with the new safety requirements (U.S. Bureau of Yards and Docks, 1947: 323).

The official ground-breaking for United States Naval Ammunition Depot (NAD) Hawthorne, Nevada took place July 24, 1928. Although far from complete, the Navy commissioned the depot two years later in September 1930, with 72 military personnel and 90 civilian employees to receive the first load of ammunition (Hawthorne NAD, 1976: 5). Higher-ranking military personnel and a few civilian managers lived in a housing enclave in the industrial and administrative complex, known generally as the "Industrial Area." This initial housing area, which remains intact today, consists of six two-story brick houses for high-ranking naval officers (the Inspector of Ordnance and Charge, Executive Officer, Medical Officer, Supply Officer, USMC Captain (Commanding Officer) and Maintenance

Officer) and 16 smaller, one-story brick houses for other depot personnel (Chief Gunner, Chief Pay Clerk, Chief Clerk-Ordnance Officer, Chief Clerk-Supply Officer, three Ordnancemen, Leadingman-Ordnanceman, Foreman of Buildings & Grounds, Power Plant Foreman, Stockman, Electrician, Plumber, Machinist, and Engineman) (Koval 1990: 8). In the same area the Navy built a small brick schoolhouse, known as Cotter Grammar School after Lieutenant Commander C.H. Cotter, who was in charge of construction at the depot (*Mineral County Independent News* (MCIN), April 8, 1981: 53). Enlisted marines lived in a barracks building (A4), also in the Industrial Area. The majority of the civilians who worked at the depot lived in the town of Hawthorne, only two miles to the south. Throughout the 1930s this housing arrangement was adequate for the needs of the depot and gave a boost to the local economy through rents and retail sales. Hawthorne's population increased to 680 by 1930 and the town continued to grow slowly throughout the decade (MCIN April 8, 1981: 6).

Expansion During World War II

When the United States inaugurated its emergency program of national defense construction in anticipation of World War II, the Navy embarked upon an enormous expansion of its support establishment, including its ammunition depots. Facilities at the eight older coastal depots were expanded as much as possible, but new construction was limited by space at those more populated and developed sites. The isolated inland depot at Hawthorne had no such limitations and both its mission and its facilities were expanded tremendously. In the decade preceding the war, NAD Hawthorne's 200 principal buildings included 84 high-explosive magazines, a mine-filling plant, and its administrative and housing components (U.S. Bureau of Yards and Docks, 1947: 325). In response to the war demand, the depot expanded to contain more than 3,000 structures upon completion of its defense construction program (Koval, 1990:1).

A special appropriation in 1939 funded the initial expansion at NAD Hawthorne, with the Los Angeles construction firm of William Neil Company, Limited (Wm. Neil Co.) receiving the first contract for $450,000. Early the following year, the Wm. Neil Co. obtained a second, more lucrative contract for $1,132,000 to further expand Hawthorne's facilities. As the war in Europe and the Far East intensified throughout 1940, the United States hurried to finance its defense-preparedness projects. By October 1940, the Wm. Neil Co. had amassed two additional contracts, one for $2,250,000 and another for $2,146,000 (MCIHN February 12, 1941: 1). The new construction program consisted primarily of additional magazines and industrial facilities to produce and store ammunition, but the scope of the war-driven expansion program far surpassed that of the original facility, requiring the work of hundreds of new contractors and laborers.

At the same time that the new projects were being completed and put into production, hundreds of new depot workers arrived to operate them. The town of Hawthorne, with only a handful of boarding houses, converted garages and a few small hotels, was not at all equipped to house and feed the influx of construction and depot workers who flocked to the plant. Two former Civilian Conservation Corps (CCC) camps established in the 1930s for watershed protection, were refitted to house the single and unaccompanied men who formed the bulk of the construction crews. The Navy also built temporary barracks to augment

"Camp Jumbo," as the old CCC camp was called, but these makeshift solutions were entirely inadequate to the task of providing housing for the thousands of defense workers and their families who moved to Hawthorne for the duration of the war. Such a work force required more substantial housing and the Navy requested authorization for the construction of a civilian housing complex at Hawthorne. In February 1941, when the Wm. Neil Co. finished its first two contracts and had begun work on the remaining projects, the Navy received funding to begin construction of 25 duplexes at Hawthorne, as part of a nationwide program to provide defense housing in areas of critical need.

Navy Low-Cost Defense Housing Program

Like other branches of the military, as well as civilian defense contractors during the war, the Navy was challenged to provide housing for the large numbers of civilian and military personnel who had to be moved to defense plants and military reservations. Housing shortages were particularly acute near the already congested urban facilities along the coasts and in sparsely populated, isolated posts such as NAD Hawthorne. Low-cost housing units had to be constructed in the vicinity of mine and fuel depots, ordnance and powder plants, ship yards and supply bases to induce civilians to work at those facilities (U.S. Bureau of Yards and Docks, 1947: 371). In response to the growing war emergency, the Navy, in conjunction with the United States Housing Authority, embarked on an overall program to provide low-cost, defense housing for its various installations. Under Public Act 671, approved June 28, 1940, the Housing Authority began a program to "construct public housing at or near military or naval posts for married enlisted men and for employees of the Navy and the War Departments who were assigned to duty at naval or military posts" (U.S. Bureau of Yards and Docks, 1947: 371). Funding and technical assistance was provided by the Housing Authority, but construction was carried out by the affected services. And, while the Housing Authority retained title to the completed projects, the Navy and War departments operated their own housing complexes with little or no intervention from any other agencies (U.S. Bureau of Yards and Docks, 1947: 371).

The Navy housing projects were developed under four classifications, with initial construction at NAD Hawthorne funded under the "Navy low-cost defense housing program". This program was financed primarily with money allocated directly to the Navy Department. The Secretary of the Navy assigned the United States Bureau of Yards and Docks the responsibility for all Navy housing development and operations. The Bureau of Yards and Docks, in turn, delegated the management and operation of Navy housing to the commandant of the naval district or the commanding officer of the naval station at which the housing was located. Each commandant or commanding officer then set up an organization for the management and operation of the housing compounds for which they were responsible. Under this system, Captain F.A.L. Vossler, who commanded NAD Hawthorne throughout the war, established and directed operations at the depot's low-cost housing complex.

By January 1, 1941, with a total of $56,822,500 allocated for defense housing, the Navy began construction of 18,895 low-cost housing units approved under provisions of Public Act 781 (September 9, 1940) and the Lanham Act (October 14, 1940) (U.S. Bureau of Yards and Docks, 1947: 372). The major continental housing projects undertaken by the Navy during the war period included developments at Norfolk, Virginia; San Diego, California; Mare Island, California; Newport News, Virginia; Miami, Florida; Newport, Rhode Island; Washington, D.C.; South Charleston, West Virginia; Alameda, California; Pascogoula, Mississippi; and Hawthorne, Nevada (U.S. Bureau of Yards and Docks, 1947: 380).

Defense Housing at NAD Hawthorne

From the time of its commissioning in 1930 until 1941, the only family housing built to accommodate depot personnel consisted of the 22 brick officers' houses and the marine barracks building (Building A4) in the Industrial Area. As the United States was drawn into the war and the depot's mission and facilities expanded, hundreds of recently recruited civilian defense workers competed for the limited housing available in Hawthorne. Neither the naval reservation nor the community could accommodate the onslaught of new workers and their families. To support its defense operations at NAD Hawthorne, the Navy was compelled to build between 15 and 20 additional barracks to accommodate single men (Snow interview, December 8, 1992) and fully-equipped housing units suitable for families.

On January 29, 1941, the *Mineral County Independent and Hawthorne News* (MCIHN) announced the opening of bids at the Twelfth Naval District in San Francisco for the first phase of the Navy's low-cost defense housing for civilian workers at NAD Hawthorne. Standardized plans for the first 25 duplexes, drawn by the San Francisco architectural firm of Blanchard & Maher, had already been approved by the Navy Bureau of Yards and Docks (Bureau of Yards & Docks Drawing No. 153414: January 1941). All that remained was to obtain the services of a contractor to follow the plans. On February 5, 1941 the Navy awarded the contract to the Wm. Neil Co., the Los Angeles firm that had successfully completed contracts on the earlier expansion construction at the depot (MCIHN February 5, 1941: 1). The basic lump-sum contract allowed $163,000 for the construction of 50 low-cost housing units in the form of 25 duplexes (MCIHN February 19, 1941: 1; U.S. Bureau of Yards and Docks, 1947: 381). Within a week of the formal award, crews had cleared the area immediately south of the Industrial Area, and by March 10, 1941, construction on the first units commenced (U.S. Bureau of Yards and Docks, 1947: 381).

Due to conditions of urgency as well as economy, the U.S. Bureau of Yards and Docks prepared the plans and specifications for all the low-cost defense housing units and disseminated them to the various contractors across the country. The Bureau conducted studies to determine a type of unit that could be adapted to a variety of climates and available materials. Since construction projects could be undertaken immediately and most efficiently by using standard plans and standardized construction materials, the Bureau created a series of floor plans for single-family, two-family and multiple-family housing units. Architects drew plans for two-family units, like those at NAD Hawthorne, so that partitions could be changed to increase or decrease the number of bedrooms per unit, as circumstances changed. Plans also called for standardized equipment and accessories, and all contracts specified the inclusion of cooking ranges, refrigerators, kitchen cabinets, hot-water heaters, and forced-draft hot-air heating units with duct distribution systems. In addition, all of the Navy's low-cost defense housing project contracts required the complete construction of all roads, walks, sewer and water systems (U.S. Department of Yards and Docks, 1947: 374). In this manner, the Navy created a number of small, self-contained residential communities attached to its shore support facilities throughout the nation.

Housing construction at NAD Hawthorne conformed to the general plan set forth by the Bureau of Yards and Docks. Like the 700 units that followed, the first 25 dwellings adhered to a standard two-family floorplan. The Navy described the duplexes as "semi-permanent wood-frame low-cost defense housing units" (U.S. Bureau of Yards and Docks, 1947: 381). Each of the one-story, side-gabled duplexes formed a nearly perfect rectangle - twice as long as it was wide (27'0" x 55'4"). Identical on the exterior, the asbestos-clad duplexes offered two different plan types to accommodate various family sizes. Plan A contained two units, one side with a single bedroom and the other with three bedrooms, while Plan B contained two identical 2-bedroom units. Regardless of plan type, all units contained a single bathroom and a basic kitchen with standard equipment, including a stove and refrigerator. The units within the duplex mirrored one another. Adjoining front doors addressed the street and entered directly into adjoining living rooms that shared a common wall. A second door opened through the kitchen to the outside from the gable ends of each unit (Bureau of Yards & Docks Drawing No. 153414: January 1941).

The duplexes were plain, undifferentiated rectangles singularly lacking in any decorative detailing or architectural adornment. Through the years, however, they began to develop individual character. During the war and after, awards were given for "Yard of the Month" and residents relieved the monotony of the landscape with individualized gardens and yards. A tree-planting scheme initiated after the war was fairly uniform, but gardens, shrubs, fences and yard furniture reflected the tastes of their occupants. Eventually, the complex began to look much like any civilian tract housing addition. The first duplexes lined both sides of 11th and 12th streets in the single block bounded by Essex and Lexington avenues, just beyond the southern end of the main industrial and administrative section of the depot. When completed, in the summer of 1941, the two rows of houses comprised less than 10% of the eventual complex.

The first 50 units were ready for occupancy within three months. However, because the expansion program brought so many additional workers to the depot, the new houses were inadequate to meet the increased demands. At the same time, the Navy was actively recruiting even more skilled workers - particularly machinists and ordnancemen - to operate the new facilities at NAD Hawthorne. The Civil Service District in San Francisco, pressed to solicit hundreds of extra workers, offered wages ranging from $5.44 to $6.40 per day for jobs such as "Classified Laborer", and from $7.20 to $8.16 per day for "Senior Fireman," to entice men to relocate in Hawthorne (MCIN, February 5, 1941). In addition, increased funding was promised for further expansion of the depot's facilities to include more magazines and industrial process buildings. Local newspaper editor Jack McCloskey despaired of accounting for the various appropriations earmarked for the depot. He noted that $3,000,000 had already been allotted for expansion at NAD Hawthorne for the current fiscal year (1940-1941), and he anticipated an additional three million dollar appropriation in the coming fiscal year (1941-1942) (MCIN, Feb. 12, 1941). The expansion program was phenomenal and the United States had not yet officially entered the war.

By mid-summer 1941, Representative James G. Scrugham informed the local newspaper that yet another $4,350,000 was requested in the Naval appropriations bill for

NAD Hawthorne. The new amount exceeded all previous expenditures and included the construction of a torpedo storehouse, 50 additional powder projectile magazines and accessories, 28 high explosive magazines, 4 pyrotechnic magazines, 8 fuse and detonator magazines, additional roads and maintenance, 36 inert explosive storehouses, and additional plant facilities, including lockers and lunch rooms, an addition to the boiler plant, and an extension of the Marine barracks (MCIN July 23, 1941). There were no provisions, however, for additional civilian housing in the appropriation.

The expansion program and its corresponding population boom severely strained Hawthorne and Mineral County resources. Although hundreds of the new workers were single or unaccompanied men, others brought their wives and children to the Nevada desert valley. The local schools noted record enrollments for September 1941, and by January 1942, just after the United States' entry into World War II, overcrowded classrooms had reached "emergency" conditions and plans were made to construct an addition to the Hawthorne elementary school (*MCIN*, January 14, 1942). Medical and recreational services were taxed to the limit and housing was nonexistent. In addition to the civilian construction crews and depot workers, increasing numbers of naval and marine personnel were assigned to NAD Hawthorne as the United States prepared for war, and they, too, required housing and recreation. A U.S.O. recreation hall built in Hawthorne during this period, provided some diversion for the men (MCIN, October 15, 1941), but such outlets were inadequate to serve the burgeoning population in Hawthorne and its vicinity. Heretofore uncommon social problems surfaced in Hawthorne, as well, and the local newspaper duly noted arrests for theft, assault, illegal gambling, public intoxication and other criminal activity usually associated with a highly transient population (MCIN, various 1941-1946). The most persistent and overriding problem facing both Hawthorne and the ammunition depot, though, was simply the lack of adequate housing.

Second Phase of Duplexes

In January 1942, with the United States officially engaged in the war, critical shortages of manpower and materials forced the Navy to curtail its housing program. Under Executive Order No. 9070, the Federal Public Housing Authority, part of the National Housing Agency, relieved the Navy of its responsibility to provide housing for civilian industrial workers, except in places of extreme isolation and critical need, like Hawthorne, Nevada. In such cases, the Navy entered into a partnership with the housing authority whereby the Bureau of Yards and Docks developed construction projects with funds transferred from the National Housing Agency. Between February 1942, when the National Housing Agency was organized, and the end of the war in August 1945, the Navy built an additional 4,315 housing units under this plan (U.S. Bureau of Yards and Docks, 1947:374).

Late in January 1942, the defense housing coordinator for the Twelfth Naval District, O. W. Campbell, visited NAD Hawthorne to determine the exact need for housing (MCIN, January 28, 1942). By the first of March 1942, Nevada senators Pat McCarran and Berkeley Bunker announced approval by the National Defense Housing Agency for the construction of 400 additional semi-permanent dwelling units. Each of the new duplexes was expected to cost the federal government $3,750, financed through provisions of the Lanham Act to alleviate crowded conditions in critical defense areas (MCIN, March 4, 1942). Work was started under a cost-plus-fixed-fee contract to the Wm. Neil Co. on April 16, 1942 (U.S. Bureau of Yards and Docks, 1947: 381).

By the time Campbell inspected the area in January 1942, Hawthorne easily met the criteria developed by the Navy and the housing authority for civilian housing. Its boarding houses and hotel rooms were filled beyond capacity and some enterprising citizens even rented the same bed to two or three people on rotating shifts according to their work schedules (Group interview, December 8, 1992). The housing shortage became even more acute in the spring of 1942, when a fire consumed much of downtown Hawthorne, destroying the 24-room Gallo Hotel, which housed nearly 50 Navy construction workers (MCIN, May 13, 1942). Facilities at Camp Jumbo were enhanced during that period, but they could not keep abreast of the demand for beds. Following the fire, Mike Gallo rebuilt Gallo's Inn on the site of his former hotel but it was not nearly sufficient to meet the housing needs of the defense workers. Gallo appealed to Hawthorne's patriotic citizens with this advertisement in the *Mineral County Independent News*:

> **Do You Have a Room for Rent**
> **In a Private Home, Rooming House or Hotel**
> **By Day, Week or Month?**
>
> If so, you are invited to notify Gallo's Inn any time you have a vacancy. Every day we are forced to turn away applicants for rooms, many times workers who are seeking to locate in Hawthorne and whose services are badly needed by contractors.
>
> We will be glad to direct those seeking sleeping quarters to anyone in town who will keep us informed of vacancies. There will be no charge for the service. In doing so you will be rendering a community service an indirectly an aid to the war effort (August 19, 1942:7).

Although construction at the new housing development progressed on schedule, Hawthorne endured a serious housing crisis throughout the summer of 1942.

The Navy sought an immediate solution to the problem by constructing a trailer court with the capacity for 300 dwelling units. Construction crews cleared the land at the far southwest corner of the new housing complex and installed water, sewerage, electricity, wash and shower rooms, toilets, laundry and garbage facilities. According to contemporary newspaper accounts, tenants who rented space in the court paid between $2.50 and $3.00 per month and were expected to supply their own trailers (MCIN August 12, 1942). While the trailer court was intended to bridge the housing gap until the additional duplexes could be completed, it remained at full occupancy throughout the war (Group interview, December 8, 1992).

Babbitt Court

From its inception, the housing project was called simply the "Low-Cost Defense Housing Project" (Depot Log, June 8, 1942; MCIN, various). By April 1942, however, when the first 25 duplexes were occupied and the second group of units were under construction, the housing development had taken on an identity of its own and was dubbed "Babbitt Court" or "Babbitt Housing Area," later merely "Babbitt", after Captain H.S. Babbitt, the second Inspector of Ordnance and Charge at NAD Hawthorne (Koval, 1990: 28).

The first six units in the second phase of Babbitt construction were completed and occupied on June 19, 1942 (Depot Log, June 19, 1942). On that same date, construction began on yet another 300 demountable-type defense housing units (U.S. Bureau of Yards and Docks, 1947: 381). Demountable houses differed from the "semi-permanent" houses in their capacity to be quickly disassembled for service elsewhere, as demand warranted (McCarran papers, 1945). The demountable houses had floorplans and dimensions similar to the earlier duplexes but they were made of less durable, partially pre-fabricated materials and had a somewhat different exterior appearance. Construction continued throughout the summer and fall of 1942 to fill in more than 40 square blocks of housing between the original 25 duplexes, located at the northern end of the complex, and the trailer court, at its southern tip. Both projects were completed by December 13, 1942 (U.S. Bureau of Yards and Docks, 1947: 381).

While the first 25 duplexes appeared to be merely an appendage of the industrial and administrative complex, the construction of 700 additional housing units transformed the desert valley into a residential community almost overnight. Streets were laid out in a grid pattern around a central community center, with the numbered streets, 10th through 31st, running roughly northeast to southwest, intersected by the main thoroughfares of Essex and Lexington avenues and smaller arterials, running parallel to U.S. 95, the main highway that connects the depot with the town of Hawthorne. According to the guidelines established by the Bureau of Yards and Docks, the contractor was responsible for the installation of all roads, walkways, water and sewer lines and other streetscape and infrastructural features of the complex (U.S. Bureau of Yards and Docks, 1947: 374). In the planned design for Babbitt, a central section of land for a community buildings divided the northern and southern residential sections neatly in half.

In addition to more than 1,000 new housing units (trailers and duplexes), a central block named Babbitt Court divided the residential complex into two equal halves. The block contained a retail shopping and service center designed to make the residential complex self-sufficient. Among the first buildings completed in the community center were a large grocery store, post office, pharmacy, theater, dispensary, library, U.S.O. club building and the region's first bank (MCIN, April 8, 1981). Once completed, Babbitt Court offered its residents greater amenities than those available in nearby Hawthorne. Transportation was provided by the depot, which obtained and operated 15 busses to ferry Civil Service and contractor employees between their work stations and the housing development (Depot Log, May 27, 1942). When fully occupied, Babbitt was a self-sufficient community, and was regarded as such for census and postal purposes, both during and after the war.

Babbitt's internal organization followed guidelines established by the Bureau of Yards and Docks, whereby the commanding officer, Captain Vossler, was directly responsible for the construction and operation of the housing complex (U.S. Bureau of Yards and Docks, 1947: 371). As commanding officer throughout the construction of the first 750 housing units, Vossler initiated most of the policies that governed the complex. When the first 25 duplexes were open for tenants, Captain Vossler assigned Sergeant A. B. Chambers to one of the units as "assistant manager in the supervision and maintenance of the housing project" (MCIN, 1987). In practice, Babbitt's management was a sort of joint military-civilian and public-private consortium. Law enforcement was shared by a civilian Babbitt police force and depot Marines who regularly patrolled the area. Major crimes committed at Babbitt were prosecuted by the state in district court, while other crimes, such as property theft, came under the jurisdiction of the federal government (MCIN, 1987). The Babbitt Community Council, composed of residents and depot liaisons, was established to set rules, sponsor recreational and educational activities, and operate facilities such as the library. In general, retail operations such as Hanson's Grocery Store and Johnson's Pharmacy were leased to private concessionaires who operated under regulations set up by the depot commander (Group interview, December 8, 1992). In exchange for low rental and utility rates, the retailers at Babbitt contributed funds to the community council for its various programs "to enhance the morale of the residents" (MCIN, 1987).

The Work Force

The effect of the depot expansion and its attendant population growth on Mineral County was tremendous. In September 1942, the county boasted one of the nation's largest population gains since the 1940 census. The 1940 census showed only 2,342 residents in the entire county, but by mid-1942 the town of Hawthorne alone counted more than 5,000 residents "according to conservative estimates" (MCIN, September 9, 1942). Indeed, it was difficult to obtain an accurate figure due to the constantly changing numbers of defense workers and military personnel during wartime.

Despite Mineral County's population increase, the depot faced constant recruitment challenges. Construction and depot workers who were drafted into military service had to be replaced and, as the war progressed, the supply of able-bodied men available for defense industry work diminished. In November 1942, nearly a year after the Japanese attack at Pearl Harbor, defense plants began hiring women for occupations previously reserved for men. In its first effort to attract women to the depot, NAD Hawthorne offered the position of "Female Trainee" to 50 women at a starting rate of $.58 per hour, with time-and-a-half for overtime beyond a forty hour week. Women were expected to learn the basics of "overhaul, handling, storage and shipment of various types of ordnance material and in various mechanical operations in connection with maintenance overhaul and repair of depot equipment". Upon completion of two months satisfactory training, women could be promoted to the intermediate level at $.64 per hour with a raise to $.70 per hour after four months. Promotions and advancement to Ordnanceman, Journeyman or other more skilled occupations were also possible, but it was clearly stated that jobs for women were "War Service appointments," intended only for the duration of the war (MCIN, November 18, 1942).

Black Residents at Babbitt

The demand for defense workers remained critical for the duration of the war. Despite efforts to recruit local women as ordnance workers, the *Mineral County Independent News* reported that the jobs recently advertised for women remained open because there were not enough local workers to fill the vacancies (MCIN, December 16, 1943). Ultimately the openings attracted workers from outside the region. By 1942, notices at post offices and other governmental agencies throughout the country, particularly in the South, attracted the first black workers to the defense plant at Hawthorne. Oral accounts indicate that many black workers in Texas, Louisiana, Arkansas, Missouri and Kansas learned of jobs at Hawthorne through family members or friends who were already employed at the depot (Group interview, December 8, 1992). Regardless of the recruitment method, the promise of good-paying defense jobs brought black workers to NAD Hawthorne by the hundreds. They would become the first permanent black residents in the Hawthorne area (McCloskey interview, December 9, 1992).

According to the 1940 census, blacks constituted a very small percentage of Nevada's total population. Before the war, a few blacks were reputed to have passed through Hawthorne while engaged in railroad work, but none remained as residents. According to some residents, blacks were made unwelcome prior to their recruitment for defense work and consequently Hawthorne had no black citizens before the war (Gray interview, December 8, 1992). The arrival of Hawthorne's first black residents during World War II is undocumented, but they were undoubtedly at Babbitt by the close of 1942 when the second phase of duplexes was completed, because 110 of the housing units were reserved for blacks only. About the same time, the *Mineral County Independent News*, whose temporary editor indicated black newsmakers by race, began documenting local events involving blacks. One of the first references to blacks in the Hawthorne newspaper involved the murder of a black woman by a black man who was a resident of Camp Jumbo and, most likely, a construction or ammunition depot worker (MCIN, January 20, 1943). More frequently, however, violence was perpetrated against black residents by depot Marines who appeared to exercise their authority to maintain order more in response to race than to the nature of the infraction (Gray interview, December 8, 1992). Blacks perceived as trouble-makers or undesirables were commonly "floated out of town", (that is, they were tossed into Lake Walker with a warning not to return). The custom was so common that the term became a local euphemism and the newspaper regularly reported court cases in which judges "issued floaters" to troublesome characters (MCIN, various). It was the equivalent of being run out of town "on a rail," or at the very least, being told to leave town and not come back.

Despite Hawthorne's early attempts to discourage black settlement in the area, the ammunition depot was desperate for defense workers regardless of race. Accommodations for black families were incorporated into the master plan for Babbitt by April 1942, when construction began on the second round of 400 duplexes and the layout of the housing complex took its permanent form. The "Colored Section" encompassed the far southeastern limits of the residential area, with houses lining both sides of 27th, 28th, 29th and 30th streets and Lexington Avenue, and the west side of Essex Avenue (Gray and Group interviews, December 8, 1992; Molyneaux maps, 1992). There were no physical characteristics that distinguished black units from white ones, but the entire black section of the complex was separated from the larger white residential area by a block-wide swath of undeveloped desert, later planted in alfalfa and gardens. Since there was no similar gap in construction between residential segments in the northern half of the residential section - the analogous block was entirely developed with houses facing both sides of 14th Street - it appears evident that the deviation in pattern was intended to create a buffer zone between the races in the southern half (Molyneaux, 1992).

Black residents shopped unrestricted at the central grocery and pharmacy and they conducted business at the post office, but recreational and social activities were usually segregated. For instance, the Babbitt theater had a section designated for black patrons cordoned off by ropes. The community center pharmacy indicated its seating policy with a black hand pointing to one side of its lunch counter and a white hand pointing to the other. The bowling alley reputedly was built with two separate wings, one for black bowlers and the other for whites (Group Interview, December 8, 1992). Although these aspects of segregation were generally perpetrated by private citizens operating concessions on the military reservation, such activities functioned under the auspices of the government and were therefore tacitly sanctioned.

The inequality inherent in a segregated system exacted a toll on the black community. For instance, black groups used the recreation buildings for special events but their activities were often "bumped" if a white group wanted to use the building on the same date (Group interview, December 8, 1992). After the war, when it was determined that Babbitt would remain in operation, the government resolved to provide more facilities for the black population. The solution - the conversion of a house in the black residential section for use as a recreation center - while it guaranteed blacks a consistent meeting space, further removed them from the Babbitt mainstream . The new recreation center formally opened on January 9, 1946, with a ceremony presided over by Reverend William Clayton. The Navy appointed a committee comprised of members of the "Colored (Bethel Baptist) Church" to govern the center, but Captain Vossler's representatives emphasized that the center was intended "for the use of all the colored residents of Babbitt Court." They also explained that it was "built and furnished by the Navy for the pleasure, convenience and recreation of all the depot's Colored workers," including those living in Hawthorne and elsewhere (MCIN, January 9, 1946). In the late 1940s, the Navy upgraded a small barbecue shack on 31st Street, in the same block as the new community center, to a permanent structure. The barbecue became a special gathering place for the black community, particularly for young people (Group Interview, December 8, 1992). While providing some better amenities to the black community, the Navy's actions further consolidated black social and beneficent activities within the designated black residential neighborhood and the practice of segregation at Babbitt became more deeply entrenched. Meanwhile, blacks in Hawthorne contended with other aspects of racial prejudice.

Blacks in Hawthorne

There is little documented evidence of the effect the influx of black workers exerted on the local population, but it is apparent that the town went through a period of adjustment that persisted long after the war was over. Because Hawthorne had no black residents before the expansion program commenced at the depot, the town had no established social canons against them. For instance, Hawthorne's public institutions such as schools, hospitals, and funeral homes were not segregated. Hawthorne simply had no black citizens before 1940 so it did not have a tradition of institutional segregation. Further, there was never a serious attempt to impose segregation in the public domain (McCloskey interview, December 9, 1992). On the other hand, many private businesses, particularly those of a social nature such as restaurants, theaters and taverns, refused black patronage (Group interview, December 8, 1992). In a town without an established black community, such prohibitions put blacks at a particular disadvantage. Ironically, although Hawthorne had a number of casinos during the war, it appeared that a disproportionate number of blacks were arrested for illegal gambling

(MCIN, various). This may have been due to the prohibition against blacks in most legal gaming establishments.

The Mineral County liquor board recognized and addressed the lack of recreational facilities for blacks when it voted to amend the liquor ordinance to provide for the issuance of licenses for "colored" saloons. Jack Rosemont, who operated a tavern for blacks near Reno, testified before the board that a number of local black residents asked him to open a combined restaurant and saloon in Hawthorne because they were "denied service in practically all similar establishments in town" (MCIN, June 9, 1943). The board amended the ordinance but was careful to stipulate that no license would be issued without careful consideration of the application and without gauging the reaction of property owners in the proposed vicinity. Although unstated, the tone of the report indicated that the board considered this a temporary situation created by the war in "providing recreation for colored people employed in war work locally" (MCIN, June 9, 1943). The implication was clear that blacks were not regarded as permanent residents, but were merely transient workers for the duration of the war. By the end of World War II, however, many of the black workers who came to NAD Hawthorne for defense jobs had begun to regard Mineral County as home.

Post-World War II Period (1946-1952)

At the conclusion of World War II, NAD Hawthorne remained in operation, unlike the hundreds of wartime ordnance plants built solely in response to the emergency. One of the major, immediate responsibilities of the depot was the destruction of thousands of tons of munitions, a job requiring a substantial workforce. Nevertheless, once the immediate crisis had passed, production was greatly reduced at the depot and scores of workers were laid off. Without jobs or roots in the community, many families returned to their pre-war homes or set out for new locations. Thus, although the Babbitt Housing area was not abandoned, many of its houses were left vacant with windows and doors boarded shut in the years immediately following World War II.

The eruption of hostilities in Korea in 1950 launched NAD Hawthorne on a new production program requiring more workers who again turned to Babbitt for housing. Recently vacated Babbitt duplexes were renovated for more modern use and by removing the center wall, many were converted to single-family houses with four bedrooms apiece (Molyneaux, 1992). At the same time, a new section of single-family dwellings known as Title 3 Housing was erected at the western edge of Babbitt to alleviate the renewed housing shortage. Babbitt's total building count surpassed its World War II levels, and the 1950 census recorded more residents in Babbitt (2,464), than in the town of Hawthorne (1,861) (MCIN, April 8, 1981: 6). In elections from 1946 through 1952, Babbitt voters outnumbered those in Hawthorne (MCIN, 1987). Although the Korean conflict was of relatively short duration and some of the housing units were sold after its conclusion in 1952, the depot remained in production and Babbitt remained occupied.

While Babbitt's population declined after the Korean War, it remained a viable community throughout the 1950s. Many defense workers chose to remain in permanent positions at the plant and, although rents had increased from $25 a month to $45 a month in 1952, Babbitt housing was inexpensive by all standards (Snow interview, December 7, 1992). Babbitt offered other incentives, as well. The community buildings constructed during and immediately after the war offered Babbitt residents similar and, in some cases, better amenities than the town of Hawthorne. For instance, the Security National Bank of Nevada established the area's first banking facility at Babbitt rather than in Hawthorne (MCIN, April 8, 1981: 34), and the grocery store was the only major supermarket in Mineral County (Group interview, December 8, 1992). In addition, Babbitt had its own shopping center, complete with a post office, drug store, bowling alley, dress shop, shoe repair shop, beauty and barber shops, library, theater, hobby shops and meeting facilities. A community dispensary provided medical and dental services for Babbitt residents. After the war, a new elementary school was constructed at Babbitt and playing fields, tennis courts and baseball diamonds were added to the grounds. In the black section of Babbitt, the barbecue restaurant was a popular gathering spot for young people and different interest groups held meetings in the special community center building. Several black congregations, including St. Paul's Baptist Church and the Southern Baptist Church, formed in Babbitt and for awhile, Bethel Baptist Church met in the community center (Group interview, December 8, 1992). In the words of one resident, Babbitt was "a beehive of activity" (Gray interview, December 8, 1992).

1950s and Beginning of Racial Integration

Babbitt also endured its share of social and racial problems in the post-war period. In the 1950s, many of the black residents whose family members served in the armed forces or worked in the defense plants during the recent wars began to protest against racial segregation at Babbitt and discrimination in the work place at NAD Hawthorne. During the war, blacks endured overt discrimination on the job. At first, blacks were not allowed to work in the bomb production lines and later, when they were assigned assembly line jobs, blacks and whites were separated into work gangs by race (Gray interview, December 8, 1992). Certain areas of the depot were off-limits to blacks and separate toilet and shower facilities were the rule (Snow interview, December 7, 1992). Black women encountered even deeper prejudice. When they first arrived at NAD Hawthorne, black women found employment only as domestic workers and many went on the government payroll as maids for depot officers (Group interview, December 8, 1992). When they were finally permitted to work in ordnance, many black women were assigned jobs on the "Candy Wagon" sweeping magazines, or performing other kinds of menial chores (Group interview, December 8, 1992). Although blacks received the same pay as whites for the same work level, whites appeared to be promoted earlier and faster than blacks (Gray interview, December 8, 1992). As a result, many blacks were bitterly disappointed that working conditions and racial attitudes at NAD Hawthorne were little better than what they experienced in their former homes (Group interview, December 8, 1992).

During the post-war period in which depot employment was substantially curtailed, blacks found they were the "last hired, first fired." Reductions in Force (RIFs) were disproportionately levied against black workers and in one instance, nearly 100 black women were laid off while only two white women lost their jobs (Group interview, December 8, 1992). Furthermore, many of the white women who retained their jobs had less seniority than the black women who were let go (Group interview, December 8, 1992). Blacks also faced resistance to their promotion above the level of unskilled labor. Otis Gray took and passed the exam for a supervisory job three times before he was finally granted the position. In denying his first applications for promotion, management informed Gray that whites would not work for a black supervisor. Gray disproved the theory when he became the first black ordnance foreman in 1965 (Gray and Group interviews, December 8, 1992).

Discrimination persisted in Babbitt throughout the 1950s, as well. Although the military was officially integrated by Executive Order under President Truman, in practice, change at Babbitt occurred only after lengthy negotiations. In the late 1950s, a committee of black Babbitt residents petitioned the depot housing director, X Laughlin, to end segregation within the residential complex. Laughlin opposed the idea because he believed the system placed people where they would be most happy, but the committee persevered (Gray interview, December 8, 1992). About 1959, Irene Parker became the first black tenant in what was formerly the "whites only" section of Babbitt (Group interview, December 8, 1992). In the early 1960s, the "Colored Section" of Babbitt was declared "excess", and the housing office began reassigning black residents to houses within the former white section. Some of Babbitt's former residents agree that the action may have been part of a deliberate plan to ease the integration of the housing complex (Snow and Gray interviews, December 7 and 8, 1992). Between 1960 and 1970, all of the houses and the community center in the black section were demolished and the barbecue was moved from the military reservation (Molyneaux map "Color Town", 1992; Group interview, December 8, 1992).

The town of Hawthorne experienced dramatic changes in race relations during the 1950s and early 1960s, too. To attract tourist dollars, local businessmen developed the El Capitan, a major casino that included a restaurant and hotel. Barred from patronizing the establishment, local blacks vigorously protested the policy and called upon the NAACP for legal assistance in their battle. Major sit-ins, protests, and demonstrations ensued and Hawthorne gained statewide notoriety over the situation (Wanniski, 1964: 4). By the time the owners of the El Capitan reversed their policy, Hawthorne had one of the largest chapters of the NAACP in the state, with nearly 80% membership among the area's black citizens (Gray interview, December 8, 1992). Although the El Capitan's discrimination policy was deplorable, it galvanized Hawthorne's black citizens to active resistance, and by doing so, they forged a strong sense of identification as a community in their adopted home.

1970s to the Present

The United States' deepening involvement in Vietnam during the 1960s necessitated continued use of the Babbitt Housing area throughout the 1960s and early 1970s. After the war, however, the diminished demand for ammunition led to "Reductions in Force" at the depot, and the decision was made to close Babbitt. By that time, too, although rent was still cheap - about $90 per month - many longtime Babbitt families had decided to buy their own homes in Hawthorne or elsewhere. Vacant duplexes were boarded shut as more and more people abandoned the complex. The government sold many of the units with the condition that they be moved off the reservation and a number of Hawthorne's current residents live in the renovated former defense houses. Under a consolidation program, NAD Hawthorne was transferred from the Navy to the Army in 1977, and then to a private contractor in 1981. Throughout the transition period, more and more of the Babbitt houses disappeared until the last occupants, members of a group home for disabled persons, vacated the complex in 1987

(MCIN, 1987). In 1992, although most of the central community buildings of the world war period are extant, they have fallen into disrepair. The only one that remains open is the bowling alley

During the height of its occupancy, though, Babbitt was a bustling community whose population and amenities, for a time, surpassed all other Mineral County communities. A product of its time, Babbitt also reflected the standards and conventions of a segregated military with its separation of black and white residential areas within the complex. While the military was integrated under President Truman, segregation persisted at Babbitt until residents successfully challenged the system in the late 1950s and early 1960s. The same resolve united area blacks to resist discrimination in the town of Hawthorne and ultimately, many blacks who came to live at Babbitt during the war, moved into the town of Hawthorne where they obtained work and raised families along with white former defense workers. Today, although Babbitt is no longer occupied, its legacy survives in the town of Hawthorne through its former residents, both white and black.

APPENDIX C

Historic Resources Inventory Forms and Associated Context

HISTORIC CONTEXT FOR HAWTHORNE, NEVADA

Historic themes relevant to Babbitt and Hawthorne include Historic Settlement and Military History (Hardesty 1986:8). Bernstein and James (1989), Delacorte et al. (1994, 1995), Hardesty (1982a, 1982b), and White et al. (1991) discuss these themes. The following account generally follows Hardesty's (1982b) thematic periods, with additional discussion focusing upon historic and recent activities occurring within Hawthorne and environs.

Historic Settlement. Early settlement in Nevada was encouraged by three major pieces of federal legislation. These included *The Preemption Act of 1841,* which allowed settlers the right to purchase land cheaply upon settlement; *The Homestead Act of 1862,* which required five years settlement prior to ownership; and *The Desert Land Act of 1877,* which allowed ownership of slightly larger tracts with improvements rather than settlement. Mostly as a result of the latter two pieces of legislation, Nevada became dotted with small, family-sized farms and ranches, extending the stereotypical 19th century rural landscape from the more fertile Midwest to the Pacific Ocean.

The 1860s were a time of rapid growth for Nevada. The Comstock's mineral wealth attracted many thousands of persons, most of whom were not miners. Towns, supply roads to connect them, and industries spawned by mining activities, sprang up all over the region (Paher 1970). In March 1861, President Buchanan signed the *Organic Act*, which created the Territory of Nevada. James Nye of New York was appointed the first territorial Governor. The Pony Express operated across Nevada only for one and a half years, ceasing operation just four days after the Pacific Telegraph was completed on October 24, 1861. On October 31, 1864, President Lincoln signed Nevada into the Union as a state. In the Walker Lake area, several communities historically have been focal points of settlement. Among these, Hawthorne and Babbitt are especially significant.

Hawthorne. Johnson (1975:69)l, Myrick (1962:171-172), and Paher (1970:433, 435) comment upon the founding of Hawthorne, designated as site CrNV-03-1994 (Pendleton et al. 1982:Table 4). During 1875, a trading post, Knapp's Landing, was established at the southern end of Walker Lake. Freight, hauled south by mule teams from Wadsworth on the Central Pacific Railroad, was taken to the north end of Walker Lake. From there, it was conveyed the south end of the lake by a small steamer to Knapp's Landing. There, local Paiutes leaded the freight onto wagons which continued the journey south,

During Summer 1880, H. M. Yerington, President of the Carson and Colorado (C&C) Railroad, decided Knapp's Landing at the south end of Walker Lake would be a suitable location for shop facilities and a depot from which freight would be shipped to Aurora and Bodie. Soon, a few tents were placed at the intersection of several freight roads leading to Bodie, Candelaria, and other localities. By Fall 1880, this settlement was called Millbrae. It soon was renamed for W. A. Hawthorn, contractor of a new wagon road from Bodie.

On April 7, 1881, the C&C was completed to Hawthorne. One week later, on April 14, a riotous celebration occurred, chronicled by Myrick (1962:171-172):

> April 14 was the big day for Hawthorne. Some 800 people, including Governor Kinkead, responded to the advertisements of the C&C and rode the free excursion to Hawthorn to buy town lots. A few passengers clambered aboard Locomotive No. 1, but the majority crowded themselves into or on the express car, four coaches, and twelve flatcars which made up the train. On arrival at Hawthorne, considerable confusion ensued. Humorous fellows began calling, "Hotel, Sir, carriage to Palace Hotel." "Twenty minutes for dinner." "This way to the What Cheer House." A few farsighted citizens had set up tent saloons with such names as Silver Palace, Bank Exchange and Big Bonanza. One small tent saloon glorified itself with the name, The Field in the Cloth of Gold. Welcome those liquids must have been at one bit a drink, for it was a very hot day and there was no shade. What little water was available had been hauled four miles to town and was too warm to quench thirst.
>
> Almost before the train was unloaded a professional gambler had a "rouge et noir" game under way. In spite of this, once the auctioneer got the program started, some 35 lots were sold in a three-hour period at prices ranging from $100 to $195. Considering that this was in the middle of the desert without a permanent habitation around, the effort was considered successful, and nobody minded when a few lots went for slightly less money. Newspapermen pronounced themselves ready to start four different newspapers, though none did. The Paiutes made money by selling fish, and in the excitement there was even talk of the possibility of a lynching. At three o'clock the auction was over, and fifteen minutes later the trainload of hot and weary passengers was homeward bound "with the exception of a few who had eaten too much (beer)."

Following this sendoff, Hawthorne quickly grew (Hulse 1969:132, 235, 1991:128; Paher 1970:435). On May 16, 1881, a post office opened (Carlson 1974:131; Chan 1973:128; Gamett and Paher 1983:74; Harris 1973:28). By the end of May, water connections were present on every street. At the start of Summer, 30 houses had been built. The C&C depot was finished in August. Soon, the C&C had built extensive facilities and a procession of freight wagons and stages came and went from Hawthorne. A water works and park were constructed. In March 1883, the *Walker Lake Bulletin* began publication. During July 1883, the Esmeralda County Seat was moved from Aurora to Hawthorne.

However, by the mid-1880s, the mining boom had ended and Hawthorne ceased to grow. Located at the center of a small mining region, Hawthorne was a commercial center for surrounding mines and ranches. Although during July 1883, Darius O. Mills derided the future of the C&C and the Hawthorne area as: "We built this line either 300 miles too long or 300 years too soon" (Hulse 1991:128; Myrick 1962:174). Nevertheless, Hawthorne did not suffer the total collapse and abandonment commonly characterizing other Nevada mining-based communities. By 1890, Hawthorne had 337 people, which increased to 436 in 1900 (Hulse 1991:128).

After 1902, with the Tonopah and Goldfield Booms, railroad traffic through Hawthorne greatly increased (Paher 1970:435). However, in 1905, the railroad's realignment by its new owner, the Southern Pacific Railroad, bypassed Hawthorne entirely (Chan 1973:128; Hulse 1991:334; Myrick 1962:181, 204; Paher 1970:435). The resultant economic decline subsequently led to movement of the Esmeralda County Seat from Hawthorne to Goldfield in 1907 (Myrick 1962:204; Paher 1970:435). However, between 1907 and 1910, new mining discoveries at Lucky Boy, Rawhide, and other localities led to creation of Mineral County in 1911, with Hawthorne as its county seat (Hulse 1991:129; Mack and Sawyer 1965:98; Myrick 1962:204-205; Paher 1970:435). In 1910, Hawthorne had 471 people (Koval 1989:47). A fire in 1911 destroyed the town's center (Koval 1989:47). Before, and during World War I, increased local mining activities made Hawthorne prosper again (Paher 1970:435).

By 1920, Hawthorne's population was about 250 people (Hulse 1991:334). After 1920, Hawthorne again declined (Chan 1973:128; Hulse 1991:334; Paher 1970:435). By 1926, it had fewer than 150 inhabitants and only a two-teacher school (Chan 1973:128; Paher 1970:437). On July 2, 1926, the community's doom seemed assured when a fire gutted Hawthorne (Paher 1970:437; described in detail by Chan 1973:127):

> Two square blocks of the town's business section were completely destroyed. The flames started at the Miller Hotel, and spread quickly to the Adams and Miller store, the Mineral County power system station, and the Knights of Pythias Hall. The town lacked a sufficient water supply to stem the blaze. Only by resorting to dynamite were Hawthorne's firemen able to contain the fire to the town's central district. Thus the county courthouse, a school building, and private homes in the town's surrounding residential sections were saved from being consumed. Total property damage was estimated at around $100,000. Yet only one of Hawthorne's merchants, Alva Miller, was insured - and only for $4,000.

Approximately one week later, on July 10, 1926, a far greater conflagration consumed the U. S. Naval Ammunition Depot at Lake Denmark, New Jersey. A lightening strike produced a three-day series of explosions and fires, which destroyed at least $43,000,000 of ammunition and facilities, killing 19 people, and injuring almost 200 others (Chan 1973:128-131; Paher 1970:437). In October 1926, a search for a new, more safely located facility chose Hawthorne. During 1927-1928, enabling legislation and funding for the Hawthorne Naval Ammunition Depot was passed by the U. S. Congress. In 1929, construction of the Hawthorne facility began, and it began operation in September 1930.

During construction of the depot, Hawthorne boomed (Koval 1989:47; Paher 1970:437). Many new businesses began, including a theater, and the *Hawthorne News* started publication. In 1930, Hawthorne's population was 757 (Koval 1989:47). After 1930, Hawthorne's economy was primarily tied to the depot. In the late 1930s, projects done or facilitated by the Works Progress Administration (WPA) affected Hawthorne (Koval 1989:47). A volunteer fire department was organized during 1938-1939, sidewalks and curbs installed, and streets oiled. The town also began to benefit from increased automobile traffic through the area. Located on the main north-south highway between Reno-Carson City and Las Vegas, Hawthorne hosted increasing numbers of travelers and tourists passing through the town, and those who had come to fish in Walker Lake (Hulse 1969:236). By 1940, Hawthorne had 939 people, and Hawthorne:

> spreads out from one broad main street on a sunny plain in view of distant high ranges. It is the trade center of scattered ranch families and also the outfitting point of prospectors and miners who in 1939 were cheered by promising discoveries. Here as in every other town in Nevada - and especially along this route - every little restaurant, drinking-gambling club, and store has at least a few specimens of ore on display and the owners will talk for hours of the probable assay value of the different pieces.
>
> The presence of the naval depot has given a certain air of prosperity to the small town and facilities are in keeping with the number of visitors to the depot. From the main street small low buildings housing ammunition are visible, widely separated and far from habitations of any kind.
>
> Hawthorne is truly the West in its scorn for small change; a 35 cent breakfast will be given for 30 cents if the unfortunate traveler must complete his payment with five pennies.
>
> As elsewhere in the State, a school is one of the most impressive buildings - in this case a school for the lower grades. The low building of very modern design is up to date even to the Venetian shades at its windows. The townspeople love to tell of the young teacher who came here from the North where "fish"mean small mountain trout - and ordered half a dozen fish from Walker Lake for her biology lesson; nothing would hold the catch but the tank in which the fire company stores

> water for emergencies (Writers' Program of the Works Progress Administration in the State of Nevada 1940:219-220).

World War II brought profound changes to Hawthorne (Hulse 1991:334; Paher 1970:437). The Hawthorne Naval Ammunition Depot became one of the largest in the United States. Its facilities were greatly enlarged for ammunition production and storage. Expansion of the depot produced a severe acute housing shortage, exacerbated by a fire which destroyed much of downtown Hawthorne (Koval 1989:48; Molyneaux 1992:14, 16-17). Tent and trailer housing was built, and, starting in 1942, the community of Babbitt, located on the depot grounds, went from 50 to over 1,100 housing units within a year. Infrastructure expansion included a new sewer system and schools. During World War II, Hawthorne's population soared, and by 1944, over 4,300 military personnel and 2,860 civilians worked at the depot. At this time, the Hawthorne area had an estimated population in excess of 13,000.

After World War II, depot activity gradually declined (Hulse 1991:334; Paher 1970:437). In 1946, Hawthorne incorporated, but disincorporated 10 years later due to financial difficulties (Koval 1989:48). Depot personnel increased again during the Korean and Vietnam Wars. On September 28, 1954, following a Democratic Party pre-election rally and speech at Hawthorne, Patrick McCarran, one of Nevada's U. S. Senators for the preceding 22 years, exited Nevada politics and this mortal coil when he dropped dead from a heart attack (Edwards 1982:197-198; Ybarra 2004:746-751).

In 1977, control of the Hawthorne Ammunition Depot passed from the U. S. Navy to the U.S. Army (Hulse 1991:335; Paher 1970:437). During 1980, a private corporation took over the depot as a subcontractor for the Army. Starting in the 1980s and since, depot activities have been greatly reduced. The 1970s witnessed the establishment of business parks in Hawthorne (Koval 1989:49). For approximately the last 25 years, Hawthorne has steadily developed tourism as an economic base focused upon gambling and fishing and water sports at Walker Lake. By the late 1980s, Hawthorne's population was about 4,000.

Babbitt. Located within the current project area, the residential community of Babbitt was built by the U. S. Navy as "temporary" housing to provide accommodations for the influx of married civilian personnel and their families during World War II to the Hawthorn area (Elliott 1987:275; Hulse 1991:334; Koval 1989:28-29; Molyneaux 1992; Paher 1970:437). Beginning in 1941, Babbitt, named for Captain H. S. Babbitt, the second commander of the Hawthorne Naval Ammunition Depot, who had retired in May 1937, rapidly grew from an initial 50 housing units to over 1,100

(Figure 1). By 1944, 2,860 civilians workers at the Hawthorne Naval Ammunition Depot, and the population of Hawthorne/Babbitt was estimated at over 13,000 persons.

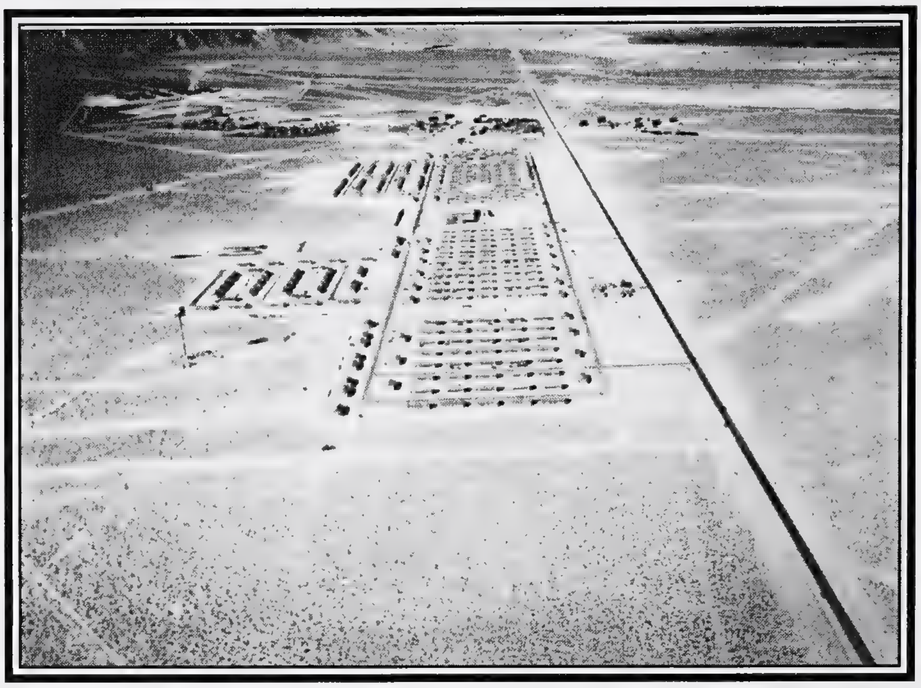


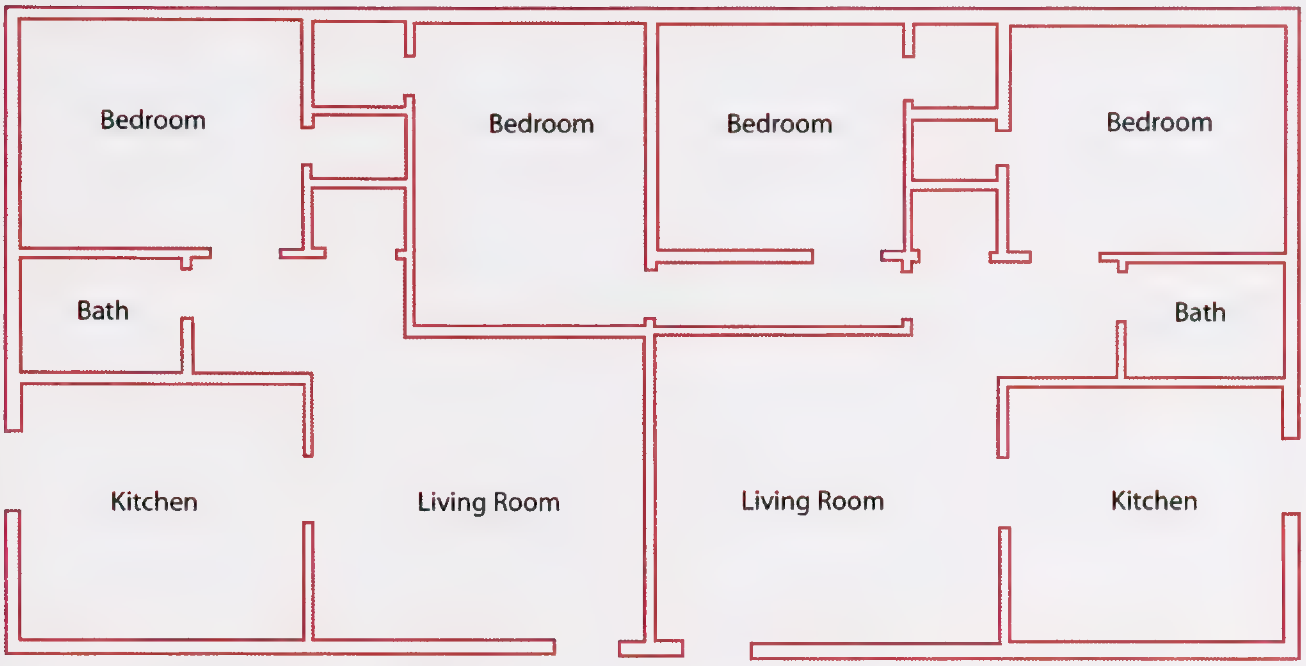
Figure 1 Aerial photo of Babbitt, c.1940s or 1950s (*Courtesy Mineral County Museum*).

Babbitt's development is detailed by Koval (1989:28-29) and Molyneaux (1992). Between 1941 and 1945, 580 duplexes with two two-bedroom or one bedroom/three bedroom floor plans (Figure 2) were designed by the U.S. Navy Bureau of Yards and Docks, as part of the U.S. Navy's Low Cost Defense Housing Project. In February 1941, the first construction contract for $163,000 was awarded. Construction began in March, and was completed by Summer 1941. The second phase of construction began in April 1942, and was finished by December. The partially prefabricated units were rectangular, 27 by 55.5 foot, one-story, wood-framed, asbestos-sided structures on concrete foundations. They had asbestos-shingled gable roofs, casement windows, and single doors (Figure 3).

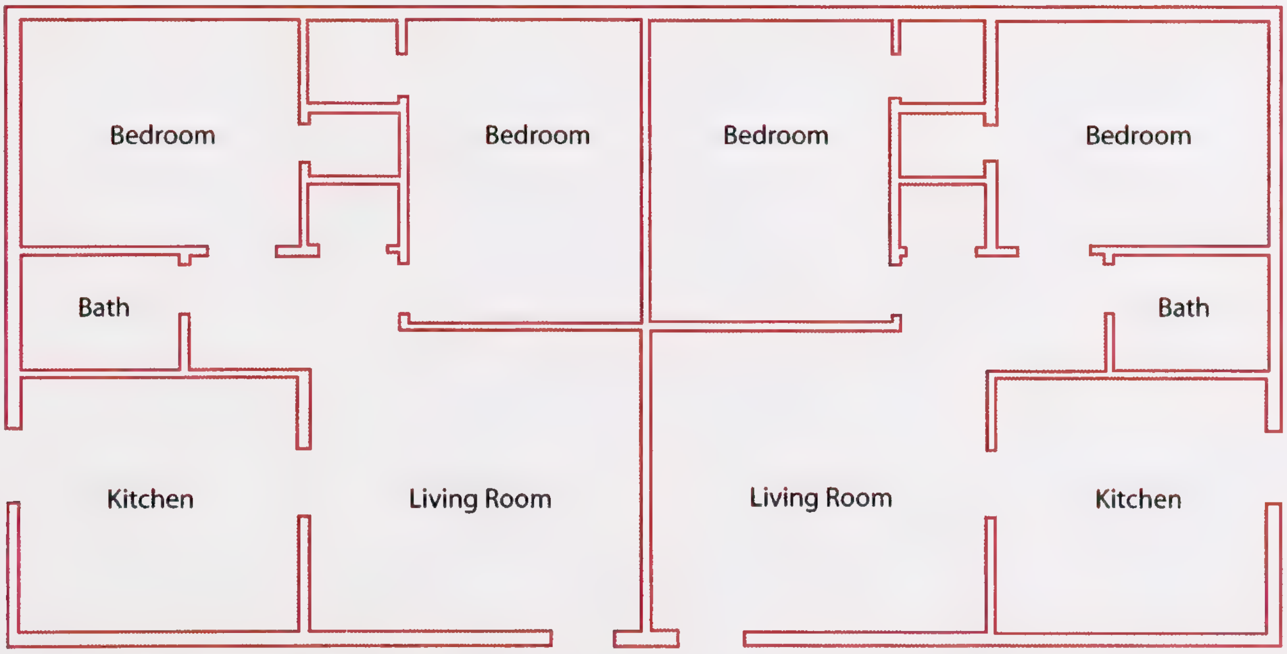
Streets were laid out in a grid pattern around a central community center. East-west avenues were named for U. S. Navy aircraft carriers, including the entire suite of pre-World II carriers, *Langley*, *Lexington*, *Saratoga*, *Ranger*, *Yorktown*, *Enterprise*, *Hornet*, *Wasp*, and the *Essex,* first of the World II ships. North-south streets were numbered from 10th to 30th.

At least 12 community buildings were constructed. Centrally situated, these structures varied in size. Like the residential units, they were one-story, wood-framed, asbestos-sided buildings on concrete foundations, with gabled, asbestos-shingled roofs, store-front windows, and single doors. These housed a grocery store, post office (opened on October 1,1942: Gamett and Paher 1983:74; Harris 1973:28), drug store, soda fountain, bank, bowling alley, theater, nursery/day care, dance hall, community center, and dispensary.

Molyneaux (1992) charts the development of Babbitt between 1941 and 1987 (Figure 4). In 1941, initial construction of 25 duplexes occurred in the community's northwest corner. During 1942, Babbitt subsequently was expanded to 400 duplexes, followed in 1943 by 87 more, and in 1944-1945



1 & 3 Bedroom Duplex Floor Plan



2 Bedroom Duplex Floor Plan

Original Scale 1/8″ = 1′0″ (Reduced)

Figure 2 Floor Plans for Babbitt Duplexes.

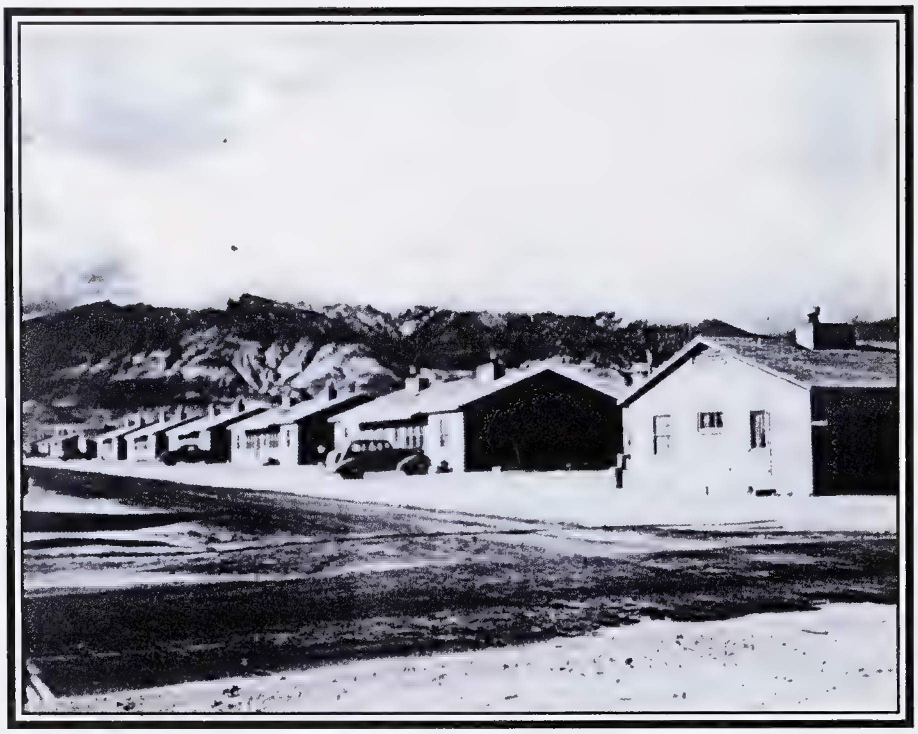


Figure 3 Babbitt, Nevada. Essex and 15th Streets, c. 1940s *(Courtesy Mineral County Museum).*

by approximately another 100. In the early 1950s, Babbitt peaked, with 579 duplexes, and 100-80 single family residences. By 1960, there were 408 duplexes, and 49 single family units. This had dropped to 294 duplexes and 49 single family units in 1970. By 1976, further reduction had occurred (156 duplexes, 49 single family units). From 1979-1987, 145 duplexes were left.

Babbitt had a police force, and a community council. For the first half of its history, Babbitt was a racially-segregated community. African-American workers and their families lived in a "Colored section," located in the extreme southeast corner of Babbitt (Molyneaux 1992) (Figure 5). It was separated from the rest of the community by an undeveloped "buffer zone," which was approximately 150 feet wide, and located between 26th and 27th Streets. Shopping and business activities generally occurred without obvious restrictions. However, recreational and social activities at the movie theater, bowling alley, and soda fountain were segregated.

After World War II, some houses in Babbitt were left vacant. However, during the Korean War, many duplexes were renovated and additional housing was built. In 1950, Babbitt had 2,464 residents, and Hawthorne 1,861 (Koval 1989:48). Following the Korean War, Babbitt continued to be occupied. During 1952, monthly rents went from $25 to $45. A number of businesses in Babbitt rivaled those in Hawthorne. In the 1950s, a new school and sports facilities were built. Discrimination against African-Americans and segregation persisted, but began to change in the late 1950s and early 1960s with the rise of the nationwide Civil Rights Movement (Molyneaux 1992).

In 1960, the population of Hawthorne was 2,838, and that of Babbitt 2,159 (Koval 1989:49). During the 1960s and early 1970s, the Vietnam War necessitated continued occupancy of Babbitt. The 1970 census reported that 3,539 people lived in Hawthorne and 1,579 in Babbitt (Koval 1989:49). After the mid-1970s, Babbitt was increasingly reduced in size and still practiced "de facto" segregation (Molyneaux 1992) (Figure 6). By June 1987, its last residents had left. Many residential units

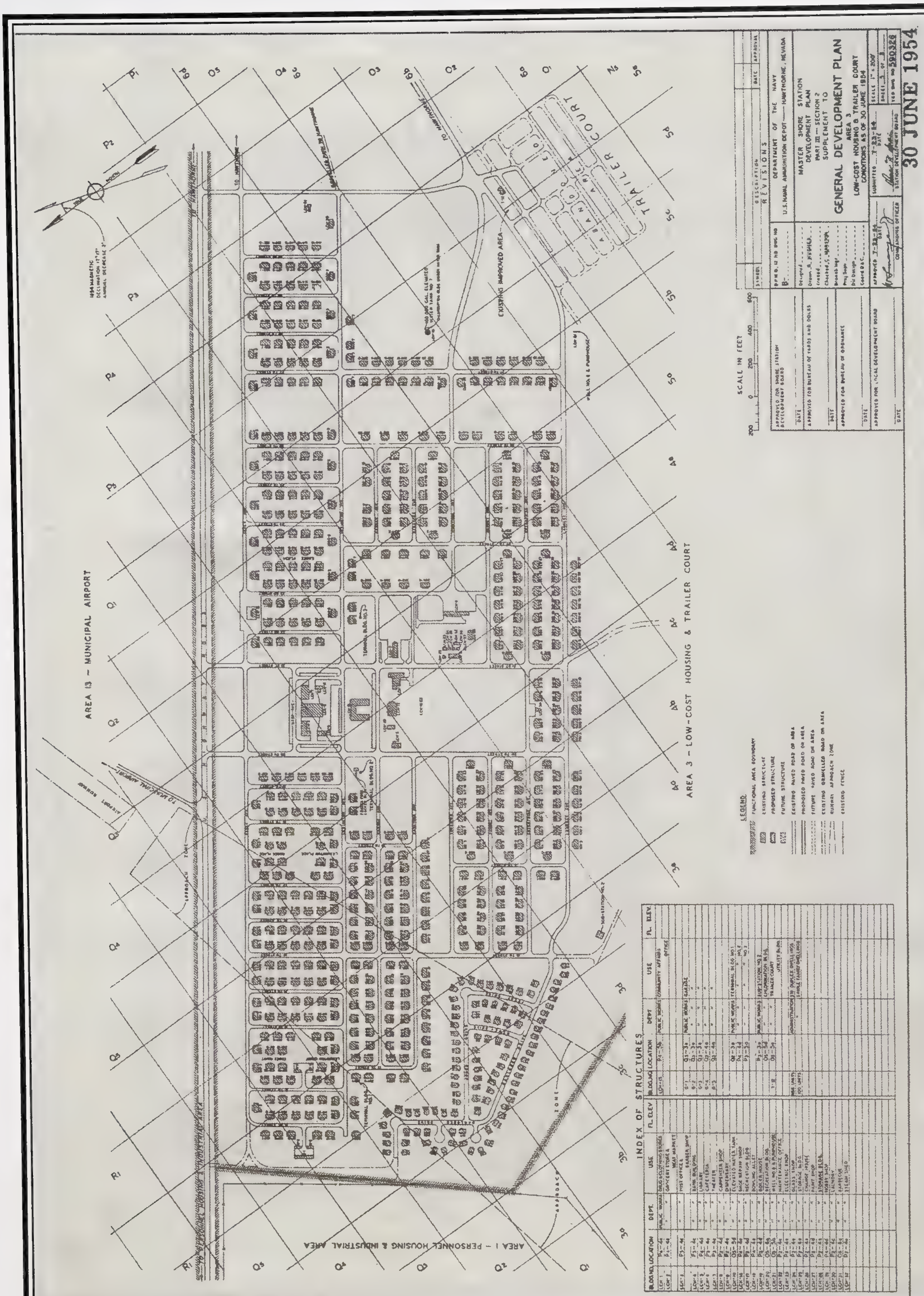

AREA 13 – MUNICIPAL AIRPORT
AREA 3 – LOW-COST HOUSING & TRAILER COURT
AREA 1 – PERSONNEL HOUSING & INDUSTRIAL AREA
TRAILER COURT
EXISTING IMPROVED AREA
INDEX OF STRUCTURES
LEGEND
SCALE IN FEET
REVISIONS
DEPARTMENT OF THE NAVY
U.S. NAVAL AMMUNITION DEPOT — HAWTHORNE, NEVADA
MASTER SHORE STATION DEVELOPMENT PLAN
GENERAL DEVELOPMENT PLAN
AREA 3
LOW-COST HOUSING & TRAILER COURT
CONDITIONS AS OF 30 JUNE 1954
30 JUNE 1954

Figure 4 Plan map of Babbitt, Nevada.

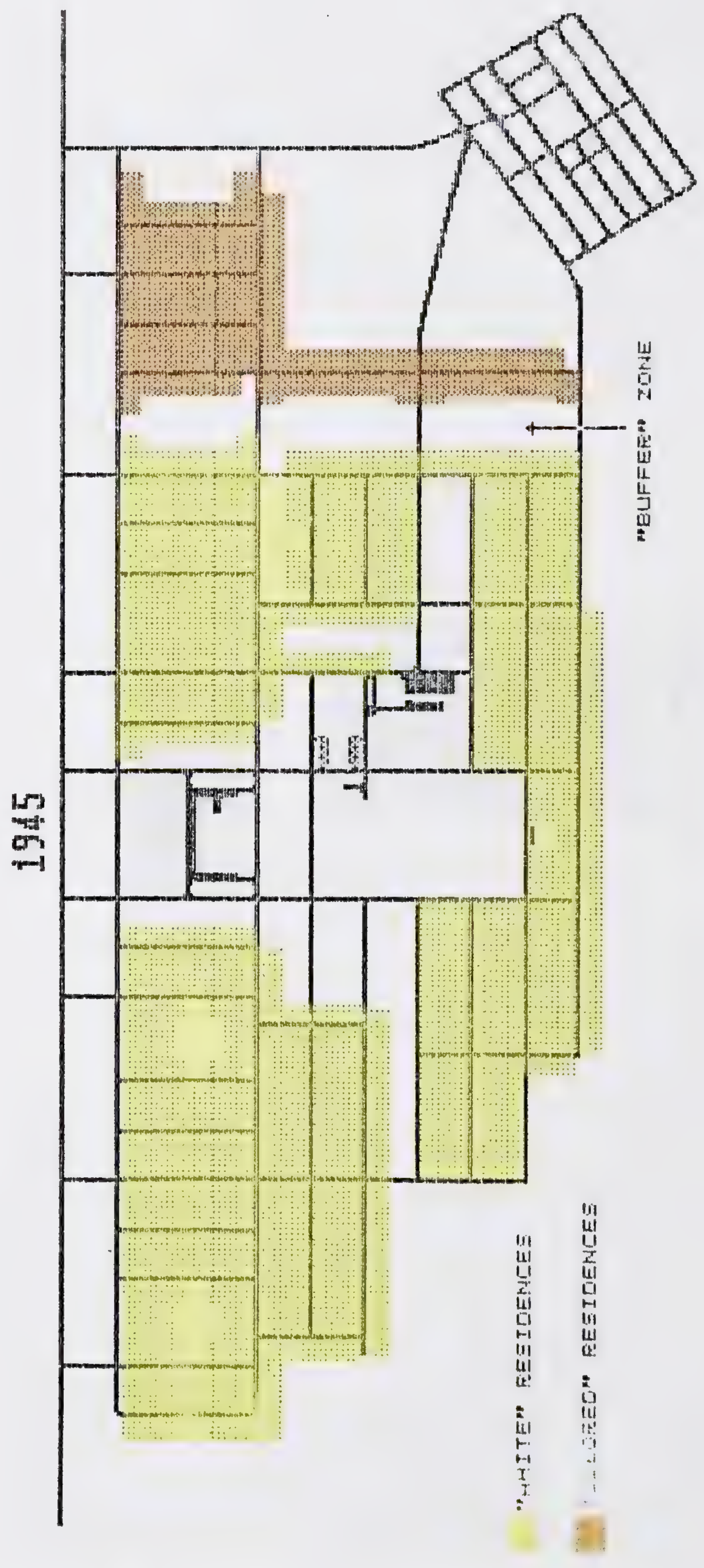


Figure 5 Babbitt "Colored Section" c. 1945 (Molyneaux 1992).

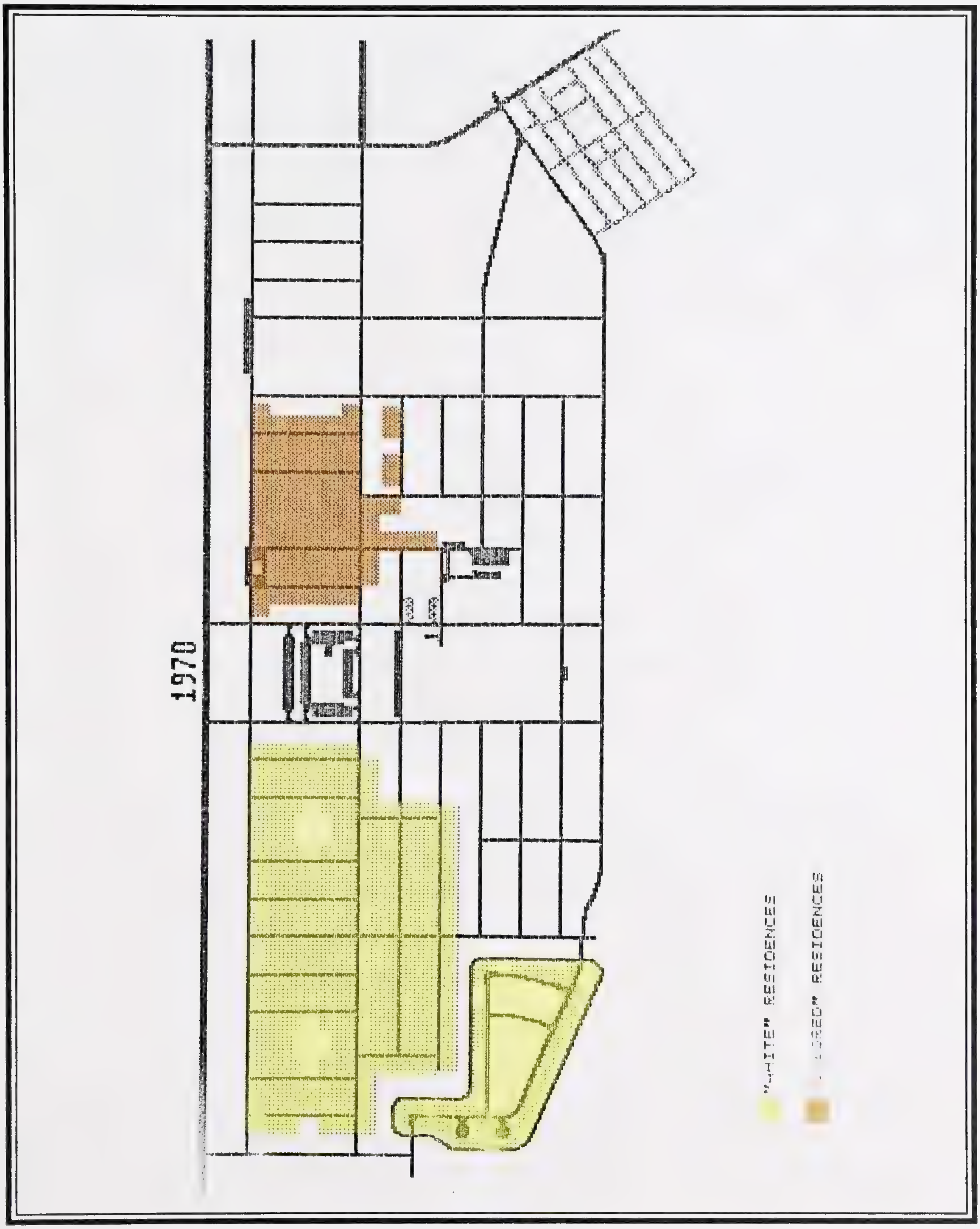


Figure 6 Babbitt Plan Demonstrating Persisting Racial Separation, c.1970 (Molyneaux 1992).

were moved out, while others were torn down. In 1992, most of Babbitt's central community buildings were abandoned and in disrepair. Subsequently, almost all have been razed. Today, nothing remains of Babbitt except for a renovated school building and numerous concrete building foundations.

2.4.6 Military History

The history of the Hawthorne Naval Ammunition Depot (sequentially, the Army Ammunition Plant and then the Army Depot) is profiled in several sources (Chan 1973:127-134; Elliott 1987:272, 313; Hulse 1969:235-236, 242, 1991:333-335; Kolvet and Ford 2006:109-119; Koval 1989:35-41; Molyneaux 1992; Loomis 1993:5-8; Paher 1970:437).

On July 10, 1926, an electrical storm at the U. S. Naval Ammunition Depot at Lake Denmark, New Jersey, detonated a magazine at the facility. This resulted in a series of explosions, which caused over 200 magazines containing TNT, dynamite, shells, torpedoes, and smokeless powder to blow up. On the evening of July 13, rain finally doused the fires and ended the explosions. The devastation was immense. All the buildings on the depot grounds were in ruins. Approximately $40 million in munitions blew up and about $3 million in buildings, facilities, and equipment were destroyed. Twenty one people were dead and over 170 injured. The explosions impacted the area within an approximate 30-mile radius from the depot, with the town of Dover, New Jersey, especially hard hit.

The Lake Denmark disaster soon led to a search for a safer location for the Navy's ammunition storage. Trasker Oddie, Nevada's junior U. S. Senator, who sat on the Senate's Committee on Naval Affairs, took a particular interest and began seeking support for Hawthorne, Nevada as an ammunition depot site. The U. S. Navy and President Calvin Coolidge soon agreed with Oddie. On October 27, 1926, Coolidge issued Executive Order 4531, authorizing withdrawal from settlement, location, sale, entry, and all other forms of appropriation, 197 square miles of Federal lands centered at the south end of Walker Lake in the vicinity of Hawthorne for exclusive use by the U.S. Navy for an ammunition depot.

Opposition came from U. S. Representative Harry Englebright of California who proposed several sites in Lassen County, California for the depot. During 1927, competing depot bills were introduced in the U. S. Senate and House of Representatives, both of which failed. An examination and comparison of the merits and drawbacks of the proposed depot sites in Nevada and California by the U. S. Navy, found in favor of the Hawthorne site. In early 1928, after intense, skillful lobbying by Oddie, the Senate and House passed a bill approving the Hawthorne site and appropriating $3.5 million for its construction and additional land acquisition. On May 29, 1928, the bill became law.

Ground breaking for the Hawthorne depot occurred on July 24, 1928. On June 26, 1929, a $1.1 million construction contract for the facility was awarded to the Mittry Brothers Construction Company of Los Angeles, California. A road and railroad spur network to service the depot was built first. This was followed by construction of facilities in the industrial area, residential structures, and the munitions magazines. Over 120 buildings were built. Construction of the depot was directed by its first commander, Carl H. Cotter, who set up his first headquarters in the Mineral County Courthouse Jury Room in Hawthorne. On September 15, 1930, The Hawthorne Naval Ammunition Depot formally was commissioned and received its first munitions shipment a month later.

At its inception, the depot had 72 military personnel, including 48 Marine guards, and 90 civilian employees. The depot first operated as a storage facility for explosives and munitions. In 1932, the Cat Creek Dam was constructed to provide a more stable water supply and 5,200 additional acres were added to the depot. By 1935, the magazines were full. During 1935, the Mine Filling Plant began operating, initially with about 160 workers which by 1940, had dropped to 100. Starting in 1935, recommendations for enlarging production and storage facilities at the depot became increasingly voiced. Between June 1939 and June 1940, more magazines were built as part of pre-World War II U. S. Military expansion.

Upon the beginning of Franklin D. Roosevelt's presidency in March 1933, and implementation of various New Deal programs, including the Civilian Conservation Corps (CCC), the Hawthorne community and U. S. Navy lobbied for establishment of a CCC camp at the Hawthorne Naval Ammunition Depot (Kolvet and Ford 2006:109-119). Late in 1933, the first CCC camp was opened at the depot, followed by a second camp in 1935. A transient camp also was established in Cottonwood Canyon at the Lucky Boy Mine facility. CCC activities at Hawthorne received particular, unconditional attention from Nevada's junior U. S. Senator, Patrick McCarran. Hawthorne-based CCC personnel built and improved roads, including the Cottonwood Canyon Road over Mount Grant; constructed Rose Creek Reservoir, which finally solved the depot's water supply problems; planted trees on and off depot grounds; installed fuel and oil tanks, built a telephone line; constructed an emergency landing field; and renovated some of the ammunition magazines. Living conditions in the Hawthorne CCC camps generally were good and CCC workers enjoyed good relations with Hawthorne's residents. In July 1938, the U. S. Navy's involvement in the CCC program was formally suspended by President Roosevelt, and the Hawthorne camps were closed down. Until Summer 1941, the Hawthorne facilities were sporadically used by the CCC.

The 46-acre emergency landing field built by the CCC (Kolvet and Ford 2006:114) in the 1930s is most likely the same as the current Hawthorne Municipal Airport. The emergency landing strips were completed for the Hawthorne Naval Ammunition Depot by 1936, and transferred to Mineral County for use as municipal airport in 1963 (Steven Gustafson, Hawthorne Utilities, 2007; personal communication). Two landings strips were located on the airfield when the transfer was complete, and renovations to the runways have been conducted as recently as 2006, when the main runway was lengthened.

After the Japanese attack on December 7, 1941, at Pearl Harbor, the Hawthorne Naval Ammunition Depot's role took on new significance, since it was the main U. S. Naval ammunition storage facility and plant located on the U. S. West Coast. Over 2,000 Naval personnel were transferred to the depot, and thousands of civilian workers came to the facility. Approximately 2,000 construction workers built two additional mine plants, thousands of new magazines and storage buildings, and housing and support facilities for civilian workers and their families, which became the town of Babbitt. Until the war's end, the construction workers were housed in the two former CCC camps, renamed Camp Jumbo.

During World War II, the depot became the largest U. S. staging area for munitions. Over 200 miles of railroad tracks and 500 miles of paved roads led to over 3,000 magazines. By the end of the war, over 5,000 rail cars per month transported munitions from the depot. In 1944, railroad freight charges for depot munitions shipments from Thorne on the Southern Pacific Railroad east of the facility totaled about $91 million. Production facilities at the depot turned out bombs, mines, and rockets. Mines and rockets were tested at the facility. By December 1944, there were 2,620 civilian workers, and 2,495 military personnel, including 600 Marine guards, at the depot. During August 1945, the depot's work force reached its peak, with 3,889 military and 1,736 civilian workers, totaling 5,625.

After World War II, the Hawthorne Naval Ammunition Depot continued to play an important role in the production and storage of munitions for the U. S. Navy. During the late 1940s, depot activities declined. By 1948, the Naval Ammunition Depot occupied 104 square miles of its 327 square mile total area. Following World War II, the depot destroyed thousands of tons of surplus munitions, a task which has continued until the present. The Korean War in 1950-1953 increased depot activity and personnel. This continued into the 1960s and early 1970s with the advent of the Vietnam War.

During this period, the depot provided storage of conventional munitions for the Pacific Theater. In one year during the Vietnam War, almost 400,000 250 pound and 500 pound bombs were produced at the depot. By this time, depot facilities included several thousand structures on 236 square miles.

After the Vietnam War, major changes occurred at the depot. In 1977, the Hawthorne Naval Ammunition Depot was transferred from the U. S. Navy to the U. S. Army, and was renamed the Hawthorne Army Ammunition Plant. During 1980, when plant activities were transferred to the Day and Zimmermann/Basal Corporation, the plant became a government-owned, private contractor-operated facility. The plant produced a range of munitions from small arms ammunition to 2,000 pound bombs during the 1991 Persian Gulf War for all the U. S. Military branches. By 1993-1996, the facility still had nearly 2,000 magazines, that could hold up to 500,000 to 600,000 tons of munitions.

In 1994, the plant was renamed the Hawthorne Army Depot. During 1998-1999, the facility was also used to destroy artillery shells containing noxious chemicals. Although included on the 2005 Base Realignment and Closure List, the Hawthorne Army Depot subsequently was dropped from the list, and will continue storage, production, maintenance, testing, and deactivation of munitions. During the last two decades, excess lands at the facility have been turned over to the U. S. Bureau of Land Management, and to the City of Hawthorne, Nevada.

Historic Research Themes and Questions

Historic research themes, domains, questions, chronological periods, geographic areas, and property types applicable to the current project area and region (i.e., western Nevada) are summarized and discussed by Bernstein and James (1989), Delacorte et al. (1994,1995), Hardesty (1982a, 1982b, 1986), and White et al. (1991), among others. The following historic research themes generally correspond to Hardesty's (1982b) thematic periods. Discussed are historic themes and associated research questions deemed applicable to the current project area. Among these ***specific*** historic themes are *Transportation*, *Settlement*, and *The Military*. As with the prehistoric research themes, they direct inventory efforts, and play a critical role in evaluating site significance. All the ***specific*** historic research themes are associated with ***general*** historic research themes, consideration of which is critical to pursuit of the specific themes. The ***general*** historic research themes include *Chronology*, and *Living Conditions*.

Chronology

Placing the residue of human behavior in chronological perspective is a fundamental concern of archaeology. A wealth of time-sensitive artifacts are available to the historic archaeologist. For example, the evolution of manufacturing techniques for tin cans and bottles, and makers' marks, enables the dating of refuse associated with historic sites within fairly narrow time ranges -- sometimes within a few years. Coins, buttons, nails, domestic items, and other artifacts also help bracket the time period(s) represented in an historic site. Archival research can provide exact dates for certain events characterizing an historic property (e.g., transfer of title to land, construction of facilities), as well as delineating precise locations of structures, fence lines, roads, water courses, and property boundaries at specific points in time (e.g., GLO plat maps). Research objectives concerning chronology include:

1. Determination of when settlements, homesteads and other habitations, mining complexes, roads, military/industrial facilities, and transportation features were established and occupied.
2. Delineation of particular time ranges for development of occupational, economic, social, and cultural activities, and reuse or adaptation to new activities.
3. Development of associations and time ranges for existing or developing settlements, mining complexes, transportation corridors, and the like; and determining the spatial/temporal parameters of associated primary/secondary habitations or settlement areas.

Living Conditions

Information on living conditions can contribute to historical understanding of the project area in two ways. First, they characterize domestic arrangements and standards of living for particular historical periods (the synchronic view). They also provide insight into processes by which small settlements of the first Euroamericans in the area, represented by isolated homesteads, trading posts, and the like, were economically, socially, and culturally linked to other areas, and increased in size, permanence, and standard of living (the diachronic view). Research objectives concerning historic living conditions include:

- Observation of changes in size, placement, and construction techniques used for habitations, businesses, outbuildings, infrastructure features, and other structures.
- Noting the types/quantities/diversity of artifacts associated with domestic activities.

- Determining the degree of access to locally obtained goods and services, including fresh foods.
- Determining the degree of access to non-local commodities, including luxury and exotic goods.
- Describing changes in the standard of living; for example, the quality or quantity of domestic furnishings characterizing particular time periods.

Settlement

During the 1850s and 1860s, The Walker Lake area was initially settled by Euroamericans. In 1881, with the advent of the Carson and Colorado Railroad, settlement of the region was greatly expanded, initially focused upon the town of Hawthorne. During World II, marked population expansion in the area associated with activities at the Naval Ammunition Depot led to construction of on-base housing including the community of Babbitt.

Historic settlement in this area principally has resulted from, and been influenced by, the interrelated development of transportation, mining, and the establishment and operation of the ammunition depot. Communities and habitation sites present in this area provide an opportunity to examine social relations, lifestyles, living conditions, ideologies, and cultures, both as unique historical epiphenomena and as examples for comparative purposes (Hardesty 2002). Suggested areas of investigation, should the opportunity present itself, include the dynamics of power relations, changing economic and financial networks, the economic relationship between local and global systems ("globalization" according to Hardesty 2002:96), development of military landscapes and use of space, and adaptation to local conditions.

Hardesty and Little (2000:142-146) observe that town sites are examples of large-scale historic sites. With respect to social formations, towns can be local or regional communities, satellites, or marginal neighborhoods. Town sites often have neighborhoods defined by ethnicity, class, and/or occupation. Viewed from a community perspective, a town can be studied through use of historical ethnography. This often can be directly tied to the archaeological record of historic households comprising the town. Towns frequently possess particular cultural meanings. Thus town landscapes can be regarded as material expressions of culture. A community's changing roles as a cultural center can be examined. Their function(s) as focal points within political economies, and as material expressions of ideology, also can be studied. Company towns are primary examples of the latter, since they generally are patterned by corporate ideology, and are expressions of cultures of power and dominance, expressed as company culture, with respect to landscapes, layout, and architecture.

Mackay et al. (1997:2,3-1 to 2.3-107, 2000:6.2-1 to 6.2-92, 6.3-1 to 6.3-24) discuss archaeological investigations at the Termo townsite, CA-LAS-1292/H, mainly occupied from c. 1900 to 1937. Their 1997 efforts are principally focused upon site layout, features, artifact classes, and chronology. Artifacts are analyzed with respect to Van Wormer's (1991) notions of artifact functional patterning, and Pred's (1970) and Riordan and Adams's (1985) model of "Commodity Access Flow," with somewhat unsatisfactory results. In the 2000 study, detailed description of features and associated artifacts is stressed. This analysis forms the basis of a subsequent interpretative discussion of Termo, integrating archival and artifactual data. Emphasized topics include the use of space, activities conducted at Termo, population composition, and availability of goods and consumer choice. Emphasis in the latter topic is upon accessible supply sources and networks, changes in supply sources, goods available through supply centers, and routine purchases manifested by diversity, buying in bulk, and choice of products and brands. Termo's survival through time and its function as a rural service market center conclude the discussion.

Settlement in the region surrounding the project area has produced various historic cultural resources. Among these are community and habitation sites, structures, features, and refuse scatters. Data requirements associated with investigation of settlements address both spatial and temporal dimensions and patterns of urbanization. Important patterns identified from documentary, archaeological, and landscape data include social and economic indicators of residential, industrial, commercial, and transportation land use. Chronology is a critical factor for monitoring change, and community development/evolution. Data relevant to settlement studies often overlaps concerns associated with other research domains and issues, such as mining, ranching/agriculture, and transportation/communication. The overall perspective of this research domain transcends individual sites, seeking patterns characterizing larger settlement nodes, and regionally-based contexts.

- What types of historic structures occur? What sorts of historic structural remains occur?
- What is the patterning of historic settlement in the project area and environs with respect to location, community layout, and so forth?
- When did settlement take place, and what are the temporal parameters of its principal events/trends?
- What are the principal settlement trends/events, and how are these expressed in the archaeological record?
- Are refuse scatters associated with historic settlement properties? What type are they? What are their attributes and patterning?
- How does historic settlement correspond with the development/location of historic infrastructure and transportation/communication features?

- How does historic settlement correlate with mining and ranching/agricultural activities?

The Military

Since 1930, the Hawthorne Naval Ammunition Depot has been a dominant feature of the physical and cultural landscape of the project area and its vicinity. Located on a vast tract of land, development at this facility has included administrative and munitions production facilities, residential areas, infrastructure (a road and railroad network, utility lines and facilities), an airport, and extensive munitions storage facilities. The community of Babbitt, which existed from 1941 to 1987, provided housing for civilian workers at the depot.

Cleland et al. (1984) present a management plan for the Hawthorne Army Ammunition Plant (formerly the Hawthorne Naval Ammunition Depot). Although mainly focused upon prehistoric cultural resources, several historic themes and associated cultural properties are identified. These include *Transportation* (railroads, a siding, a toll road, pipelines), *Mining* (mining complexes, a mill, prospects), *Urban* (towns, features, a brick kiln, a landing), *Farming-Ranching* (homesteads, cabins, a barn, a corral, an unidentified structure), and *Miscellaneous* (a CCC camp, a dam). The recommended management plan includes a general archaeological survey program, conduction of project-specific surveys until the general survey is completed, and site preservation through avoidance whenever possible. A two- to three-year phased survey program is recommended. It is proposed this should include judgmental intensive surveys of relatively undisturbed areas of the depot, and stratified, random surveys focused upon previous land use and settlement patterns.

Koval's (1989) *National Register Nomination* for the Hawthorne Naval Ammunition Depot/Army Ammunition Depot notes that the periods of significance for the facility include "Between the Wars (1919-1939)," and "The National Defense Program of World War II (1940-1945)." The facility is seen as possessing national, state, and local significance, for the role it has played in the military history of the United States and the State of Nevada, because it has a unique landscape and since it contains the best assemblage of early 20th century military cultural resources in Nevada. The former community of Babbitt is one of four different portions of the depot. In addition to the Babbitt Housing Area, these include the Personnel and Industrial Area, the Production Area, and the Other part of the depot.

The architectural style characterizing Babbitt and other World War II Era facilities at the depot is mass-produced, modest, and utilitarian. As of 1989, all of Babbitt's duplexes had been declared surplus. At that time, most either had been razed, or moved to new, off-depot sites. In 1989, 10 of the original 12 community buildings remained in Babbitt. World War II Era structures included the bowling alley, post office, union hall, thrift store, community center, library, rock shop, recreation hall, and preschool. Only the bowling alley was still in use. The Babbitt Elementary School was a post-World War II structure.

Molyneaux (1992:8-15) summarizes the U. S. Navy's World War Era Low-Cost Defense Housing Program. In the case of Babbitt, this was entirely initiated by the U. S. Navy. Noteworthy contemporary private-sector initiated defense housing construction on the West Coast occurred in San Diego, California (Killory 1993; Taschner 1982), and Richmond, California (Butt c. 2007). Beginning in 1940, expansion of the Hawthorne Naval Ammunition Depot's civilian and military work force quickly produced a housing crisis. Similar situations occurred at other localities across the United States, and the need for low-cost housing quickly became acute. As Molyneaux (1992:8-9) notes:

> In response to the growing war emergency, the Navy, in conjunction with the United States Housing Authority, embarked on an overall program to provide low-cost, defense housing for its various installations. Under Public Act 671, approved June 28, 1940, the Housing Authority began a program to "construct public housing at or near military or naval posts for married enlisted men and for employees of the Navy and the War Departments who were assigned to duty at naval or military posts . . . Funding and technical assistance was provided by the Housing Authority, but construction was carried out by the affected services. And, while the Housing Authority retained title to the completed projects, the Navy and War departments operated their own housing complexes with little or no intervention from any other agencies.

Construction of Babbitt was financed under the Navy Low-Cost Defense Housing Program, with money directly allocated to the Navy Department. The U. S Navy assigned responsibility for implementation of the program to its Bureau of Yards and Docks. By January 1, 1941, with approximately $57 million appropriated for defense housing, the U. S. Navy began construction of almost 19,000 low-cost housing units under provisions of Public Act 781 (September 9, 1940), and the Lanham Act (October 14, 1940) at a number of naval facilities, including the Hawthorne Depot. At the end of January 1941, the opening of bids for construction of the first phase of housing units was announced. Standardized plans, drawn by the San Francisco architectural firm of Blanchard and Maher had been approved by the Navy's Bureau of Yards and Docks. On February 5, 1941, a lump-sum contract of $163,000 for construction of the first 50-unit phase of Babbitt housing was awarded by the U. S. Navy to the William Neil Company of Los Angeles, California. Construction began in March 1941, and was finished by June. Subsequent construction of housing units in 1942-1945, and during the Korean War eventually produced almost 600 housing units in Babbitt.

Research questions associated with the former community of Babbitt include:

- What remains of Babbitt as regards extant structures (duplexes, community buildings), infrastructure (streets/roads, utilities), features (walls, fences), and so forth?
- What is the overall community plan of Babbitt?
- What types of remains of former structures (i.e., foundations, yards, sidewalks) occur in Babbitt?
- What purpose(s) is the former site of Babbitt currently being used for?

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NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCES INVENTORY FORM

For Office Use Only

YR Built ______________
NR Eligible? Y/N
District? Y/N

KEC Resource Identifier S-1

1. PROPERTY NAME

1A. Historic Name

Water Tank No. 7

1B. Current/Common Name

Water Tower (formerly part of the Town of Babbitt, 26Mn1669)

2. PROPERTY ADDRESS

Street Address	
City, Zip Code	Hawthorne 89415
County	Mineral

3. PROPERTY OWNERSHIP

3A. Original Owner

Name	U.S. Navy Ammunition Depot Hawthorne

3B. Current Owner

Name	Mineral County
Mailing Address	P. O. Box 1450, Hawthorne, NV 89415
Assessor's Parcel Number (APN)	006-640-10

4. CURRENT PROPERTY STATUS

	Occupied	X	Vacant
	Other (please specify)		

5. PROPERTY USE

5A. Current Use

	Residential		Commercial		Religious
	Educational		Governmental		Industrial
X	Other (please specify) Located on vacant land and not in use				

5B. Historic Use

	Residential		Commercial		Religious
	Educational	X	Governmental		Industrial
	Other (please specify)				

6. CURRENT ACCESS

	Permitted-local public resource	X	By owner permission only
	Permitted-state public resource		Restricted
	Permitted-federal public resource		Other (specify):

7. ACREAGE

0.04 acres	X	Estimated

8. PROPERTY LOCATION

8A. UTM Location/Reference(s)

[NAD 1983] **Zone** **mE** **mN**

8B. Township/Range/Section/Map

T.8N., R.30E., Section 21, *Hawthorne West, Nevada*, 7.5' Topographic Quadrangle U.S.G.S. (P.E. 1987)

9. RESOURCE DESCRIPTION

9A. Resource Type

	Building		Structure		District		Object		Site
	Other (specify)								
X	Contributing element to a historic district (specify district name) Hawthorne Naval Ammunition Depot								

9B. Exterior Resource Features

	Basement		Number of stories
	Porch		Balcony
	Dormer(s)		Chimney
	Other (please specify)		

9C-F. Materials and Systems (See instructions and enter codes from Appendix A)

9C. Roofing Material(s)	9D. Exterior Surface Material(s)
9E. Building Structural System	9F. Foundation Structural System
SS-6 (steel)	F-2 (concrete)

9G. Written Description

See continuation sheet

9H. Associated Structures/Features

Associated structures/features *(submit Associated Structures Summary)*	X	Yes		No

9I. Integrity

X	Original Site		
X	Altered (describe on continuation sheet)	Date altered	c. 1978
	Moved	Date moved	
Moved from			

9J. Condition

	Good	X	Fair
X	Poor		Ruins

9K. Threats

Potential for development of the surrounding area and removal of the tower and chlorination building.

10. RESOURCE DATE AND SIGNIFICANCE

10A. Architect/Engineer/Designer

Unknown

10B. Builder/Contractor

Wm. Neil Co., Los Angeles, California

10C. Architectural Style/Period (See Appendix B)

Vernacular Concrete /

10D. Construction Date(s)

1944 (Stephen Gustafson, personal communication 2007)	X	**Circa** 1942-1944 (McCloskey 1987:2)

10E. Date(s) of Significance

1944

10F. Historic Resource Theme (See Appendix C)

Government and Politics (Federal Government - Military); Land Usage (Townsite Development and City Planning)

10G. National Register Eligibility (See Appendix D)

	Listed			Date listed			
	Eligible under: See Continuation Page						
	Criterion A		Criterion B		Criterion C		Criterion D
	Other (specify)						
X	Not Eligible						
	Unevaluated						

10H. Justification

See continuation sheet

11. BIBLIOGRAPHY

See continuation sheet

12. FORM INFORMATION

Report Number/Name	KEC 590 / *A Cultural Resources Inventory of the Hawthorne Water Systems Project, Babbitt, Mineral County, Nevada*
Date Surveyed	June 29, 2007
Surveyor Name	D. J. McCarty
Company	Kautz Environmental Consultants, Inc.
Address	5200 Neil Road, Suite 200, Reno, Nevada 89502
Telephone Number	(775) 829-4411

13. ATTACHED DOCUMENTATION

X	Continuation Sheets
X	Photographs
X	Location Maps
	Plans
X	Other (please specify): Index to Attached Photographs. Parcel Map
X	Associated Structures Summary Form
	Historic District Addendum (if applicable)

NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCE INVENTORY FORM
ASSOCIATED STRUCTURES/FEATURES SUMMARY FORM

Property Name: Water Tower (S-1) **City, County:** Hawthorne, Mineral **Page No.** 5

If this inventory involves associated structures or features, please include this form with the SHPO submission. Include continuation sheet if necessary.

ASSOCIATED STRUCTURES/FEATURES SUMMARY				
Number of associated structures: 1		Contributing	X	Noncontributing
Number of associated features:		Contributing		Noncontributing

Structure/Feature #1	Chlorination Building	**Structure/Feature #2**	
Historic Name	chlorination building	Historic Name	
Property Type	building	Property Type	
Historic Use	water chlorination	Historic Use	
Current Use	vacant	Current Use	
Style (if applicable)	Vernacular Frame / World War II Era	Style (if applicable)	
Materials	wood, concrete, composition roofing material, wood slats	Materials	
Construction Date	1944	Construction Date	
Integrity	Fair	Integrity	
Map Reference Code	With Water Tower	Map Reference Code	

NOTE: Refer to *Section 9G. Written Description* for narrative data on associated buildings, structures, and features.

Property Name: Water Tower (S-1) **City, County:** Hawthorne, Mineral

SECTION NO: 9G. Written Description **PAGE NO:** 6

Setting

This water tower is located along the southeast edge of the former town of Babbitt, part of the U.S. Naval Ammunition Depot at Hawthorne, occupied from 1941 to 1987 (Koval 1989; Molyneaux 1992). Remnant concrete foundations, streets, and sidewalks remain to the south, east and north. Lexington Avenue, a major street through Babbitt, lies to the north. According to historic maps of Babbitt, there once were three rows of trees near the west and north sides of northwest corner of Lexington Avenue and 27th Street (Hawthorne NAD c. 1945). Today, the area is open and sandy, with sparse vegetation including sagebrush, rabbitbrush, and shrubs. The trees that once served as a windbreak are gone. There are concrete foundations present to the south, their purpose unknown.

Description

The water tower, known as Water Tank No. 7, was built between 1942 and 1944. Stephen Gustafson (personal communication 2007), who was in charge of the tanks while employed at the Hawthorne Depot, indicated it was built in 1944, and painted in 1949, based on the tower plans. An aerial photograph taken in September 1943 included in an article by Jack McCloskey (1987:2) shows a similar tower in the general location of the current one. Koval (1993:5) noted that the tank was connected to the water system via “a pressure reducing station and a 10 in. pressure line,” and was built specifically for Babbitt.

The name for this type of tower is unknown. Similar water towers were constructed as early as 1929 (Canadian Water Towers n.d.). Use of the water tower ended in 1985. Eventually, it was given to Hawthorne. However, Stephen Gustafson noted (personal communication 2007), it has never been used by the community due to deterioration of the tank.

This tower is constructed of steel, with four legs connected at the base. A single pipe extends down from the center of the tank base to the ground. It connects with a pipe system that goes into the associated chlorination building. The pipe enters a concrete foundation where the chlorination system probably is located below the ground surface. The foundation is covered with wood slats, and is approximately 5 feet wide by 2 feet long. A chain-link fence, enclosing an area 39 feet square, surrounds the tower and the building. It is 7 feet high, and topped by canted barb wire. The legs of the tower have metal baffles attached to a height of approximately 15 feet to prevent persons climbing the tower. The tower, with the tank on top, is between 150 and 200 feet high.

A valve is located roughly south of the Chlorination Building. Embossed on it is the following information. Top: “OPEN TOP;” length: “541 / UL / FM [in an inverted diamond] / 931 / THE / KENNEDY [one letter atop the next] / VALVE.” According to FireHydrant.org (1996-02), this Kennedy Valve Company valve, Model 541, was noted between 1978 and 1979. The remainder of the body of the valve is embossed with “MFG / CO.” below “VALVE.” The “UL” stands for Underwriters Laboratory listing, and the “FM [in an inverted diamond]” represents approval by FM Global, an industrial and commercial insurance company (FM Approvals 1999-2007; FM Global 1999-2007; Underwriters Laboratories 2007).

Associated Building(s)

Building A: This building was identified as the Chlorination Building located under the water tank on a map of Babbitt (Hawthorne NAD c. 1945). It is a single-story, wood-framed building, with a low sloped, shed roof covered with composition roofing material, either roll or shingle, overlaying wood slats. Eaves are of moderate size, open, with a fascia board on the ends. Walls are clad with v-notch shiplap siding, with wood corner boards. The foundation is concrete, and extends west under a pipe extending down from the center of the water tank. Fenestration is limited and asymmetrical, consisting of two doors. Both doors are wood, one (northwest elevation) of which appears to be original, and repaired with plywood. It is slightly open. The other, on the northeast elevation, has been replaced with plywood.

Property Name: Water Tower (S-1) **City, County:** Hawthorne, Mineral

SECTION NO: 10H. Justification **PAGE NO:** 7

In 1984 (MacDonald and Mack) and 1992 (Freeman et al.), two Historic American Building Surveys (HABS) were conducted at the Hawthorne Naval Ammunition Depot (NAD) that included parts or all of the community of Babbitt. In addition, a nomination form was completed in 1989 (Koval) for the Hawthorne NAD, also including Babbitt. Babbitt was considered a contributing element by Koval (1989) for the significant Hawthorne NAD as part of development occurring during World War II, (1940-1945), the second period of significance for the facility. An Historic American Engineering Record (HAER) was done by Koval (1993) for a water-cooling tower associated with the Hawthorne NAD. It mentions Water Tank No. 7 as part of the water supply system built between 1942 and 1944.

Today, very little remains of Babbitt. The town was abandoned in 1987. Since that time, all of its buildings have been razed, removed, or significantly altered. While some aspects of Babbitt, such as streets, curbs, and concrete foundations, have retained their integrity of location, the majority of the buildings have not. Removal of the duplexes, and the loss of the sycamore and cottonwoods trees that once lined the residential streets, has resulted in a loss of the *sense* of Babbitt as a community (i.e., integrity of feeling, setting, and association). Removal of many of the buildings, and significant alterations to those few still remaining, have significantly compromised the integrity of workmanship, design and materials. Due to these impacts, and the subsequent loss of all aspects of integrity, Babbitt is recommended not significant, and not eligible for nomination to the National Register of Historic Places (NRHP), as an archaeological site, or as a contributing element to the Hawthorne Naval Ammunition Depot Historic District.

The integrity of location is unchanged for the water tower, but as part of a community that no longer exists, the integrity of association, feeling, and setting has been greatly, if not completely, diminished. It is not known how much of the water system remains, though the tower is no longer in use. The style of the water tower is common, and it is a non-distinctive example of the style. Consequently, it is the opinion of the evaluator that this structure is not-significant on its own merits, and, therefore, it is not significant, and not eligible for nomination to the NRHP under any of its criteria (a, b, c or d).

SECTION NO. 11. Bibliography

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n.d. Canadian Water Towers and Standpipes - Ontario: Delhi Norfolk County Water Tower #2. Electronic document, http://www.eureka4you.com/watertowers/index.htm, accessed June 20, 2007.

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1996-02 Kennedy Valve Mfg. Co. - Elmira, NY. Electronic document, http://www.firehydrant.org/pictures/PIVkennedy.html, accessed July 2, 2007.

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c. 1945 Housing Department Map. On file, Mineral County Museum, Hawthorne, Nevada.

Koval, A.
1989 National Register of Historic Places Registration Form - Hawthorne Naval Ammunition Depot/Hawthorne Army Ammunition Depot. Rainshadow Associates, Carson City, Nevada.

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McCloskey, J.
1987 Babbitt was ‘Home’ to Thousands from 1942 to 1987. *Mineral County Independent News* 10 June:1-2. Hawthorne, Nevada. On file, Mineral County Museum, Hawthorne, Nevada; Microfilm, N0266, Getchell Library, University of Nevada, Reno.

NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCES INVENTORY FORM
CONTINUATION SHEET

Property Name: Water Tower (S-1) **City, County:** Hawthorne, Mineral

SECTION NO: 11. Bibliography (cont.) **PAGE NO:** 8

Molyneaux, M.
1991 Reconstruction Map of Babbitt. Mineral County Museum, Hawthorne, Nevada.

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NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCES INVENTORY FORM
CONTINUATION SHEET

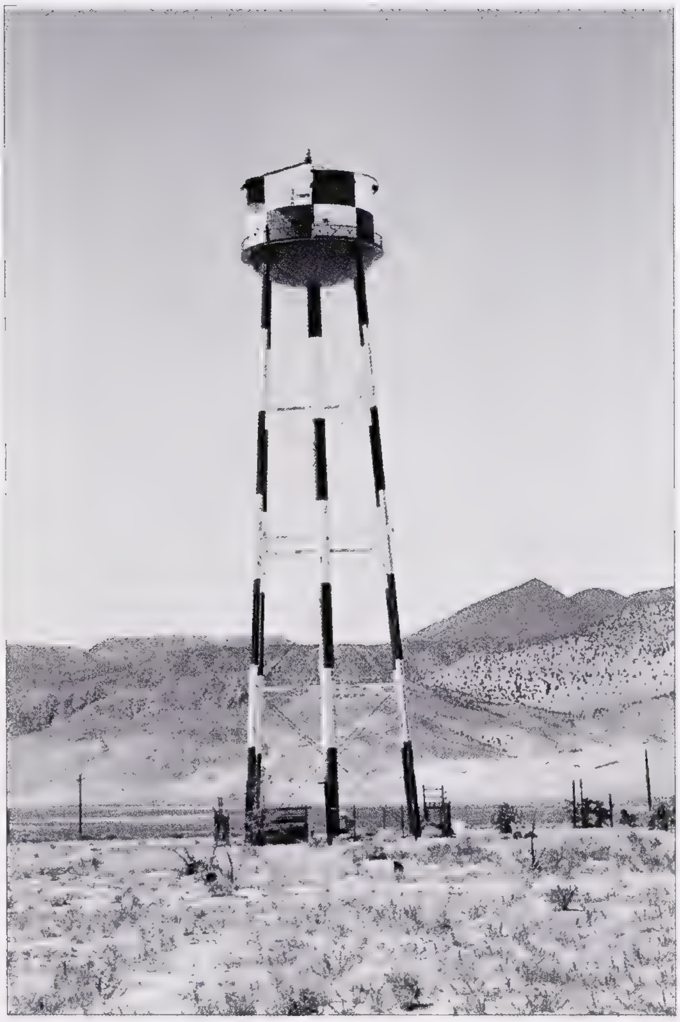
Property Name: Water Tower (S-1) **City, County:** Hawthorne, Mineral

SECTION NO: 13. Attached Documentation: Photograph Index **PAGE NO:** 9

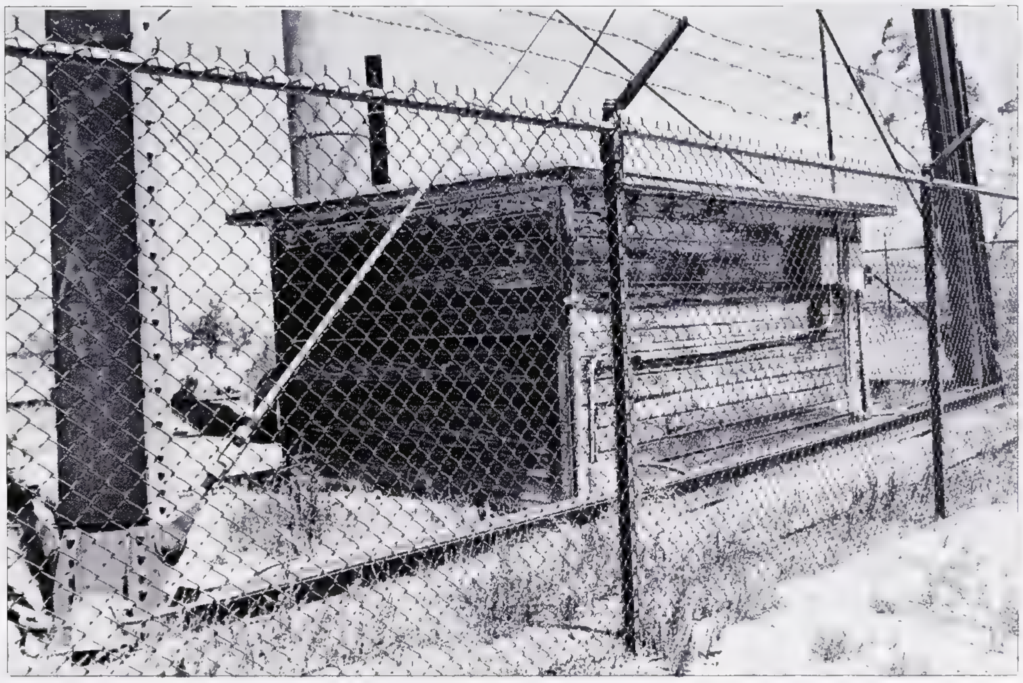
INDEX TO ATTACHED PHOTOGRAPHS

Project No: KEC- **B&W** **ISO:** 100 **Roll #:** 8 **No. Exp:** 12

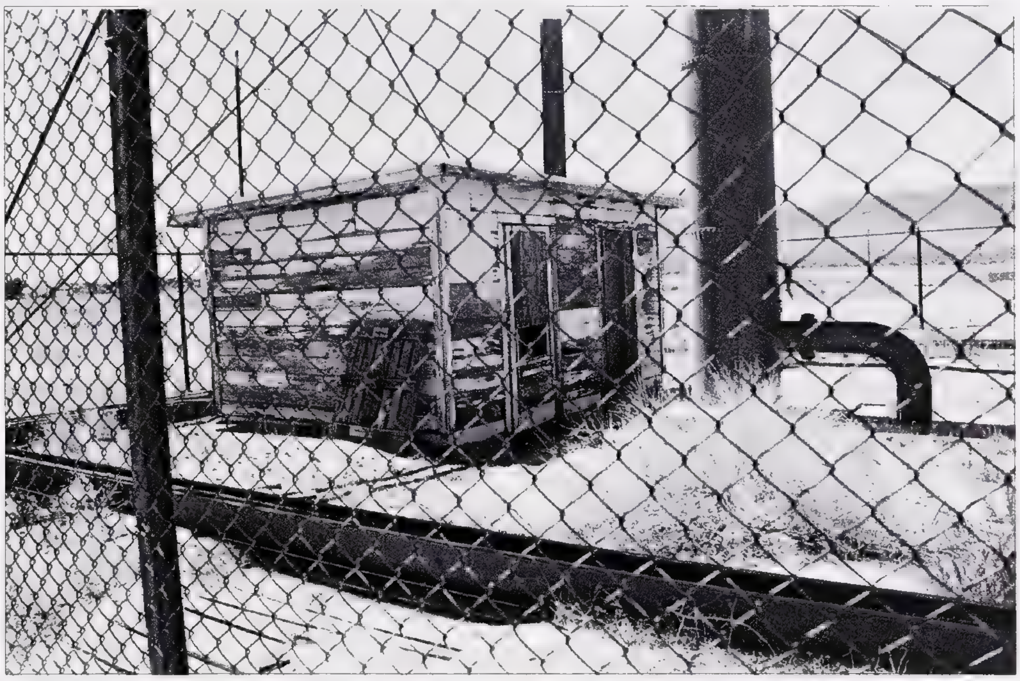
Photograph No. Proj.-Roll-Frame	Property Name Street Address City, County	Date of Photo/ Photographer	Location of Original Negative	Direction Facing	Description
590-8-5	Water Tower (S-1) Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	220°	Northeast elevation; Associated Building A (chlorination), northeast elevation
590-8-6	**Water Tower (S-1)** **Hawthorne, Mineral**	**06/29/2007** **M. E. Kimball**	**SHPO** **Carson City**	**220°**	**Northeast elevation; Associated Building A (chlorination), northeast elevation**
590-8-7	Water Tower (S-1) Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	304°	Associated Building A (chlorination), southeast elevation
590-8-8	**Water Tower (S-1)** **Hawthorne, Mineral**	**06/29/2007** **M. E. Kimball**	**SHPO** **Carson City**	**355°**	**Associated Building A (chlorination), southwest and southeast elevations**
590-8-9	**Water Tower (S-1)** **Hawthorne, Mineral**	**06/29/2007** **M. E. Kimball**	**SHPO** **Carson City**	**176°**	**Associated Building A (chlorination), northeast and northwest elevations**
590-8-10	**Water Tower (S-1)** **Hawthorne, Mineral**	**06/29/2007** **M. E. Kimball**	**SHPO** **Carson City**	**300°**	**The Kennedy Valve, south side**
590-8-11	**Water Tower (S-1)** **Hawthorne, Mineral**	**06/29/2007** **M. E. Kimball**	**SHPO** **Carson City**	**65°**	**Associated Building A (chlorination), valve and tower pipe, northwest and southwest elevations**
590-8-12	Water Tower (S-1) Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	0°	Steel support, west leg, *Illinois & USA*
590-8-13	Water Tower (S-1) Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	Detail	From south corner looking up, underside
590-8-14	Water Tower (S-1) Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	0°	Lower portion of tower from south corner
590-8-15	Water Tower (S-1) Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	11°	Southwest view; Associated Building A (chlorination), southwest elevation



590-8-6

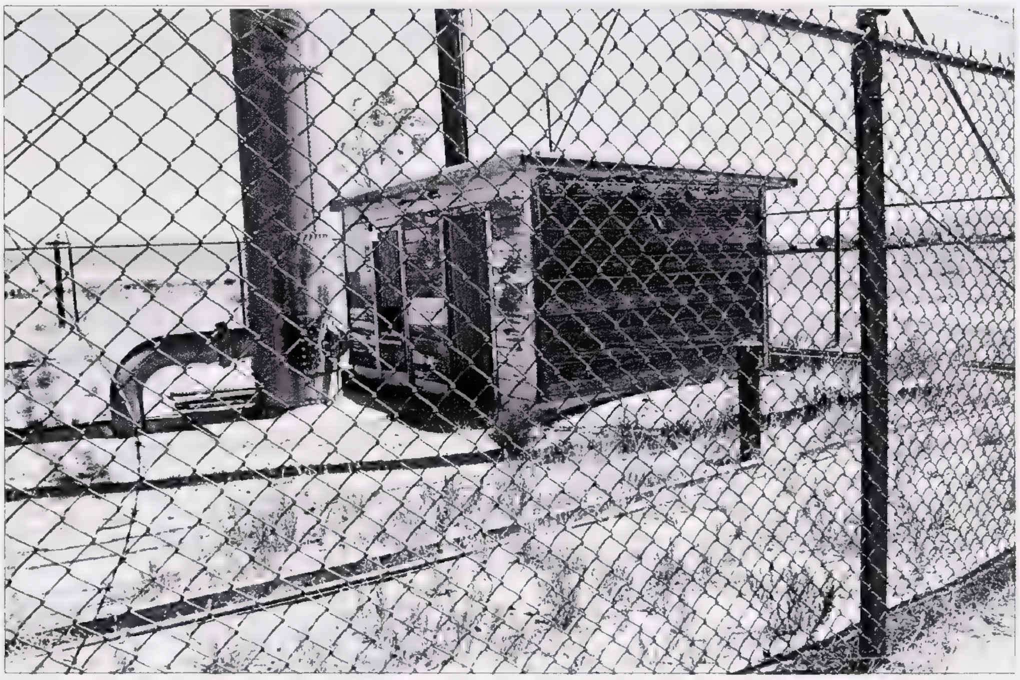


590-8-8

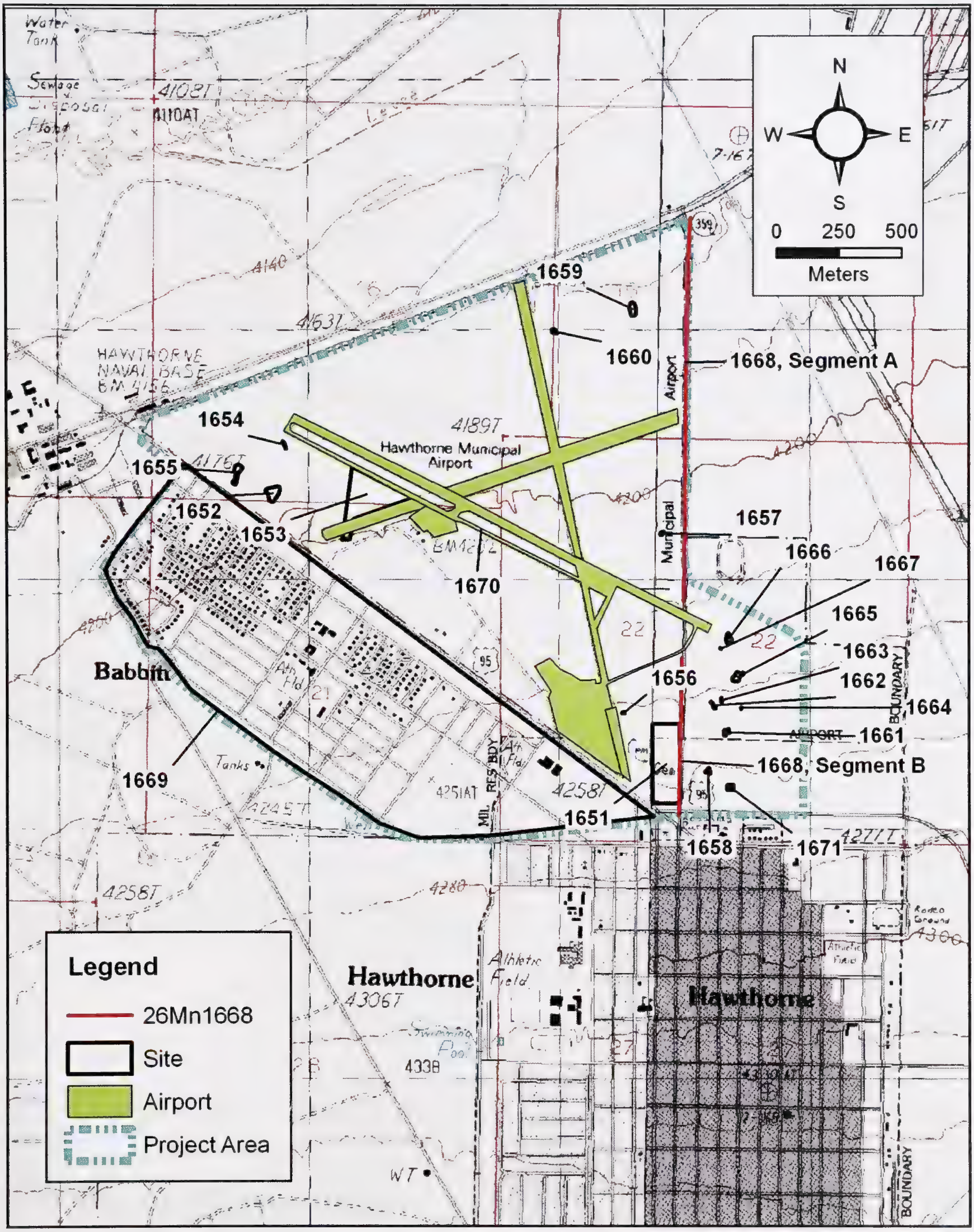


590-8-9

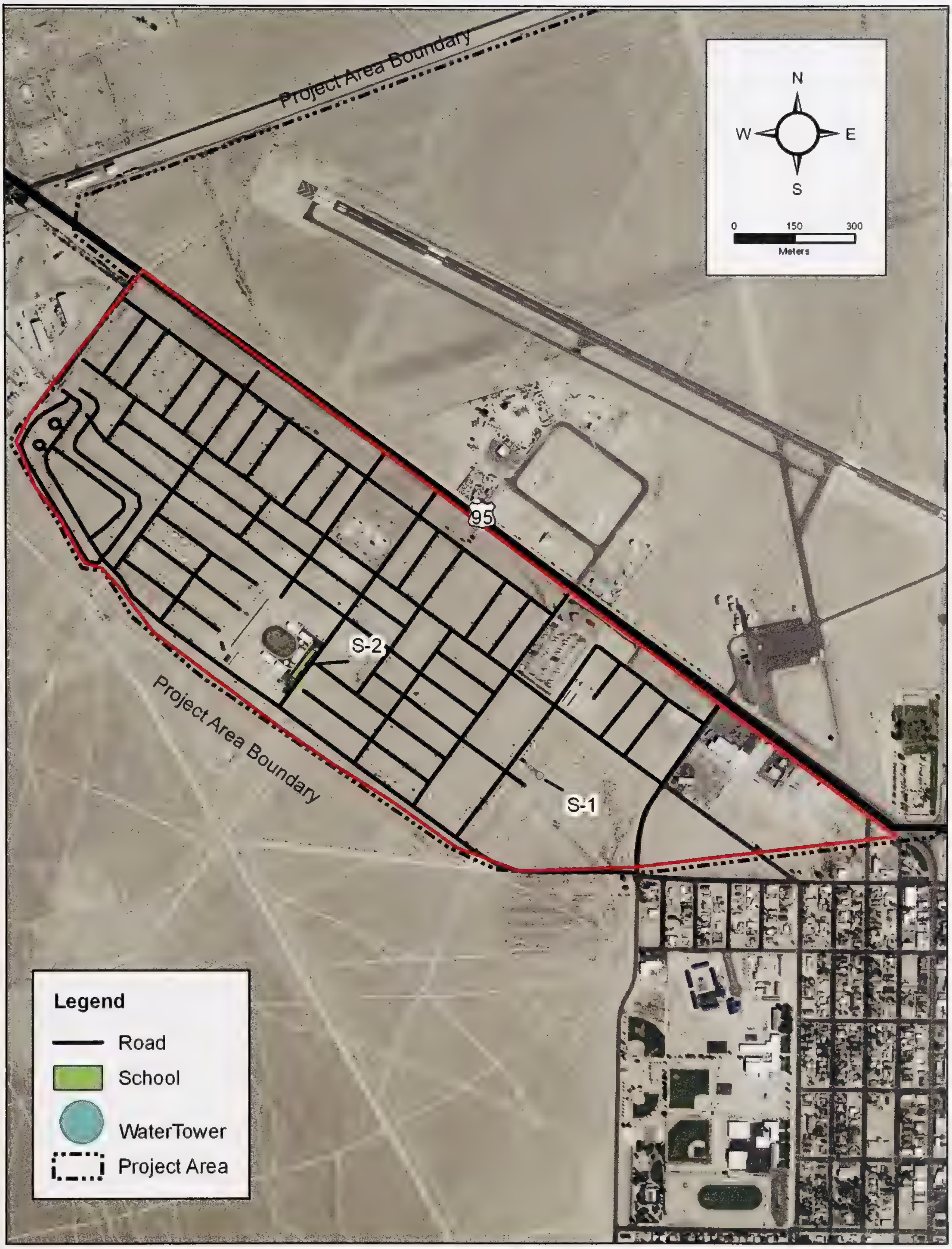
590-8-10



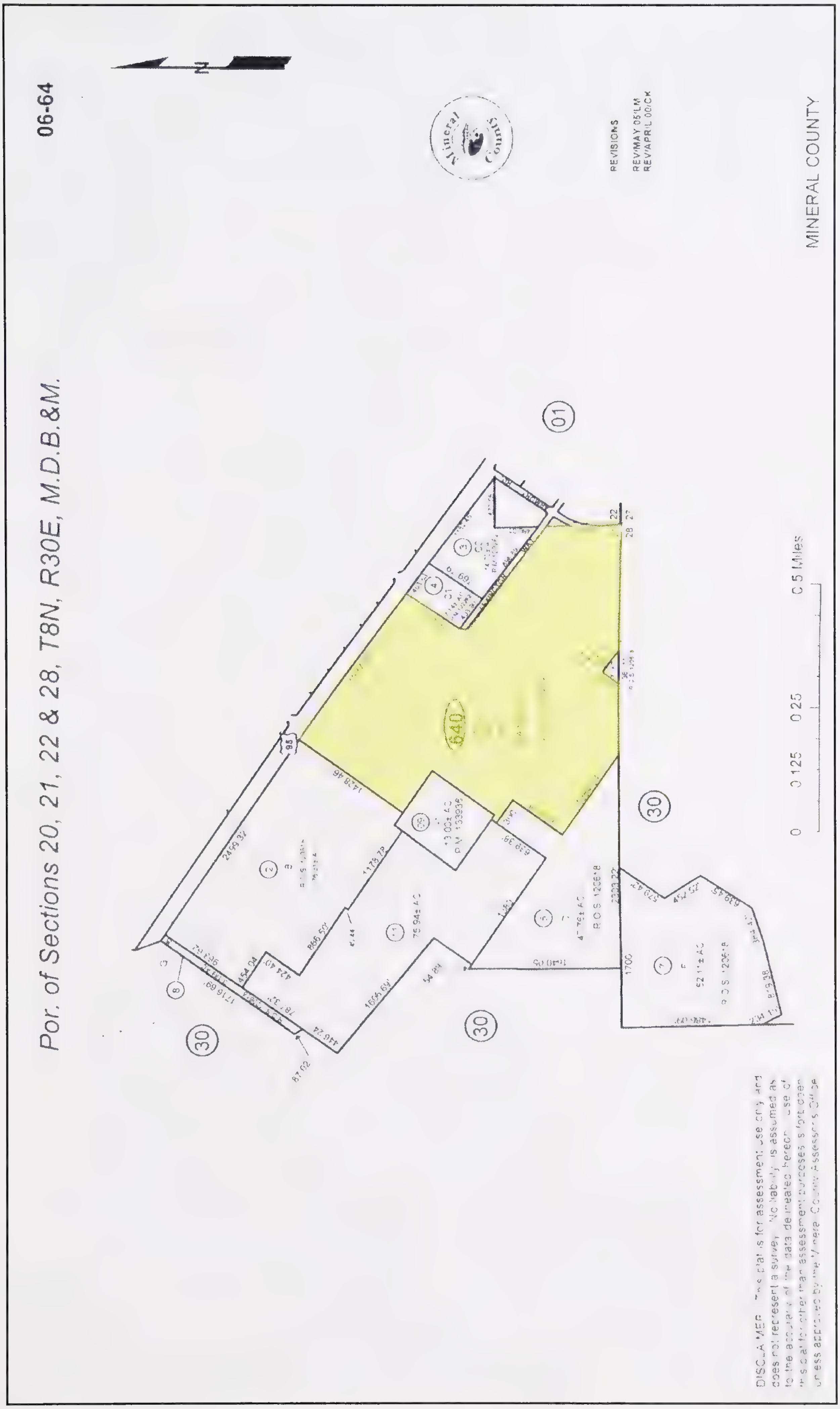
590-8-11



Site Location Map. Site 26Mn1669. Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., 1987. T.8N., R.30E.



Sketch Map of Babbitt. Aerial photograph courtesy of the National Agriculture Imagery Program (NAIP), United States Department of Agriculture.



Parcel 06-640-10. Base map courtesy of the Mineral County Assessor's Office.

NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCES INVENTORY FORM

For Office Use Only

YR Built ____________
NR Eligible? Y/N
District? Y/N

KEC Resource ID No. S-2

1. PROPERTY NAME

1A. Historic Name

Babbitt Elementary School

1B. Current/Common Name

Sky View Academy (formerly part of Town of Babbitt, site 26Mn1669)

2. PROPERTY ADDRESS

Street Address	10 21st Street
City, Zip Code	Hawthorne 89415
County	Mineral

3. PROPERTY OWNERSHIP

3A. Original Owner

Name	U.S. Navy Ammunition Depot

3B. Current Owner

Name	Sky View Academy
Mailing Address	10 21st Street, P. O. Box 1627, Hawthorne, NV 89415
Assessor's Parcel Number (APN)	06-640-09

4. CURRENT PROPERTY STATUS

X	Occupied		Vacant
	Other (please specify)		

5. PROPERTY USE

5A. Current Use

X	Residential		Commercial		Religious
X	Educational		Governmental		Industrial
	Other (please specify)				

5B. Historic Use

	Residential		Commercial		Religious
X	Educational		Governmental		Industrial
	Other (please specify)				

Property Name/Address: Sky View Academy, Hawthorne, Mineral County **Page No.** 2

6. CURRENT ACCESS

	Permitted-local public resource	X	By owner permission only
	Permitted-state public resource		Restricted
	Permitted-federal public resource		Other (specify):

7. ACREAGE

13 acres		Estimated

8. PROPERTY LOCATION

8A. UTM Location/Reference(s)

[NAD 1983] **Zone**	**mE**	**mN**

8B. Township/Range/Section/Map

T.8N., R.30E., Section 21, *Hawthorne West, Nevada*, 7.5' Topographic Quadrangle U.G.S.G. (P.E. 1987)

9. RESOURCE DESCRIPTION

9A. Resource Type

X	Building		Structure		District		Object		Site
	Other (specify)								
	Contributing element to a historic district (specify district name)								

9B. Exterior Resource Features

	Basement	1	Number of stories
	Porch		Balcony
	Dormer(s)		Chimney
	Other (please specify)		

9C-F. Materials and Systems (See instructions and enter codes from Appendix A)

9C. Roofing Material(s)	9D. Exterior Surface Material(s)
R-5 (corrugated metal)	ES-6 (stucco)
9E. Building Structural System	9F. Foundation Structural System
SS-2 (concrete block)	F-2 (concrete)

9G. Written Description

See continuation sheet

9H. Associated Structures/Features

Associated structures/features *(submit Associated Structures Summary)*	X	Yes		No

9I. Integrity

X	Original Site		
X	Altered (describe on continuation sheet)	Date altered	c. 2005
	Moved	Date moved	
Moved from			

9J. Condition

X	Good		Fair
	Poor		Ruins

9K. Threats

At this time there are no potential threats to this building, which is now privately owned. There is the potential for development in the surrounding area.

10. RESOURCE DATE AND SIGNIFICANCE

10A. Architect/Engineer/Designer

Unknown

10B. Builder/Contractor

Unknown

10C. Architectural Style/Period (See Appendix B)

Vernacular Masonry / Post World War II Era - Mid 20th Century

10D. Construction Date(s)

1953 (Stephen Gustafson, personal communication 2007)		Circa

10E. Date(s) of Significance

1953-1970 (Freeman et al. 1993:51)

10F. Historic Resource Theme (See Appendix C)

Government and Politics (State and Local Government - Education); Land Usage (Townsite Development and City Planning); Architecture

10G. National Register Eligibility (See Appendix D)

	Listed			Date listed			
	Eligible under:						
	Criterion A		Criterion B		Criterion C		Criterion D
	Other (specify)						
X	Not Eligible						
	Unevaluated						

10H. Justification

See continuation sheet

11. BIBLIOGRAPHY

See continuation sheet

12. FORM INFORMATION

Report Number/Name	KEC 590 / *A Cultural Resources Inventory of the Hawthorne Water Systems Project, Babbitt, Mineral County, Nevada*
Date Surveyed	June 29, 2007
Surveyor Name	D. J. McCarty
Company	Kautz Environmental Consultants, Inc.
Address	5200 Neil Road, Suite 200, Reno, Nevada 89502
Telephone Number	(775) 829-4411

13. ATTACHED DOCUMENTATION

X	Continuation Sheets
X	Photographs
X	Location Maps
	Plans
X	Other (please specify): Index to Attached Photographs, Parcel Map
X	Associated Structures Summary Form
	Historic District Addendum (if applicable)

NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCE INVENTORY FORM
ASSOCIATED STRUCTURES/FEATURES SUMMARY FORM

Property Name: Sky View Academy **City, County:** Hawthorne, Mineral **Page No.** 5

If this inventory involves associated structures or features, please include this form with the SHPO submission. Include continuation sheet if necessary.

ASSOCIATED STRUCTURES/FEATURES SUMMARY				
Number of associated structures: approximately 6		Contributing	X	Noncontributing
Number of associated features:		Contributing		Noncontributing

Structure/Feature #1	Administration	**Structure/Feature #2**	see continuation sheet
Historic Name	n/a	Historic Name	
Property Type	building	Property Type	
Historic Use	n/a	Historic Use	
Current Use	offices	Current Use	
Style (if applicable)	Vernacular Frame / Early 21st Century	Style (if applicable)	
Materials	wood, T-1-11 siding, metal roofing	Materials	
Construction Date	c. 2005-2007	Construction Date	
Integrity	Good	Integrity	
Map Reference Code	A - south of S-2	Map Reference Code	

NOTE: Refer to *Section 9G. Written Description* for narrative data on associated buildings, structures, and features.

Property Name: Sky View Academy (S-2) **City, County:** Hawthorne, Mineral

SECTION NO: 9G. Written Description **PAGE NO:**

Setting

This building is located near the south center of the former town of Babbitt, part of the U.S. Naval Ammunition Depot, and occupied from 1941 to 1987. Remnant concrete foundations, streets with curbs, and sidewalks are present in the surrounding area. The school property is now enclosed with high wood fencing that surrounds the buildings, and play area, which includes a basketball court. Asphalt parking is present along the north and southeast sides of the property. The surrounding area has limited vegetation, that includes sagebrush and plants associated with the shadscale vegetation community. Little remains of the trees planted along the streets, or of the yards tended by former residents.

Description

According to Stephen Gustafson (personal communication 2007), the Babbitt Elementary School was constructed in 1953, and used by Hawthorne until 1985. The property was sold to the Sky View Academy in either 2005 or 2006. At this time, the school was renovated and additional buildings added to make up the complex.

This building is a single-story, Contemporary School Structure built on a rectangular plan with an irregularity. The foundation is concrete, and the structure is concrete block clad with stucco. The low-pitched shed roof is covered with corrugated sheet metal. Wood roof slats are exposed under the eaves, which are very wide and open. The roof beams are exposed and tapered on the exterior. Fascia boards are on the ends. The eaves are wider along the east elevation, providing shade over sidewalks that run along the side of the building. There are no chimneys or flues, but eight new air conditioning units are present on the roof.

All the windows present on the extension on the east elevation, and along the length of the west elevation, are modern aluminum. In the center of the extension on the east elevation is a metal door with a single light. On each side of the door are two vertical slide windows. A single vertical slide window occurs north and south of the extension. South of the window is a second metal door. There are no openings on the south or north elevations. On the northwest corner of the north elevation is a large circular stucco frame built into the wall, with a painting of the sky on the inside. There are approximately 30 windows present on the west elevation. These appear to be a mix of vertical slide and possibly fixed. There also are six metal doors with a single light, and one solid metal door present. The west elevation is partially obscured by the wood fence that surrounds the compound. A photograph taken of the school in the c. 1960s (Babbitt 2007 calendar), shows the door and windows on the extension, as well as the doors on the north and south. Other windows are not as evident due to shadows.

Associated Building(s)

Building A: A modern, prefabricated, one-story building with T-1-11 siding and metal roofing. Other buildings include at least two dormitories on the north side, an unknown building between them and the school, and at least two other buildings on the south side to the west of the Administration building. All are prefabricated, and date between 2005 and 2007.

Property Name: Sky View Academy (S-2) **City, County:** Hawthorne, Mineral

SECTION NO: 10H. Justification **PAGE NO:** 7

Although there have been two Historic American Building Survey (HABS) conducted of the Hawthorne NAD that include parts of Babbitt (MacDonald and Mack 1984; Freeman et al. 1993), as well as a National Register of Historic Places nomination for the Hawthorne NAD (Koval 1989), the Babbitt Elementary School was not discussed as part of the community. It is possible that the school was considered part of the larger Hawthorne/Mineral County educational district, and thus excluded from these studies.

Themes potentially relevant to the evaluation of this resource include "Architecture," "Land Usage (Townsite Development and City Planning)," and "Government and Politics (State and Local - Education)." The geographic limit is at the local level – i.e., the communities of Babbitt and Hawthorne, and the current project area. The associated chronological period is the Post World War II / Mid 20th Century, 1953. The location remains unchanged, however, the integrity of setting and association has been greatly affected by the loss of the residential part of Babbitt, and the trees that once lined its streets and the front (east elevation) of the school. The loss of open areas surrounding the school as playing fields and basketball court(s) is another change in the setting and feeling once evident. Materials and workmanship also have been affected with the recent renovations made to the building. These include covering the walls with stucco, replacing the windows, and possibly redoing the roofing, including addition of new air conditioning units. The change of the area with its total enclosure, and construction of other buildings adds to the overall change of the school from public to private.

With regard to significance, though the reason for building the school is due to the growth of Babbitt, which has been considered a contributing element to the Hawthorne NAD (Koval 1989), the school was not included in the discussion of buildings within the community. There is no direct relation to the Hawthorne NAD nor its purpose, indicating that, at this time, the building has no known association with significant events in Hawthorne and the immediate area (Criterion a), nor are there any known associations with the lives of persons of importance to the community, state, or nation (Criterion b). It is a common, non-distinctive example of Contemporary School architecture, and does not embody sufficient characteristics to be considered a good representative example of the style or period. The method of construction is ordinary, and it is clearly not the work of a master, nor does it possess high artistic value (Criterion c). The building is unlike to yield additional research opportunities for furthering an understanding of historical developments or educational architecture on a local, regional or national level (Criterion d). Consequently, it is the opinion of the evaluator that this historic period school building is not significant, and not eligible for nomination to the National Register of Historic Places (NRHP).

SECTION NO. 11. Bibliography

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National Register Staff
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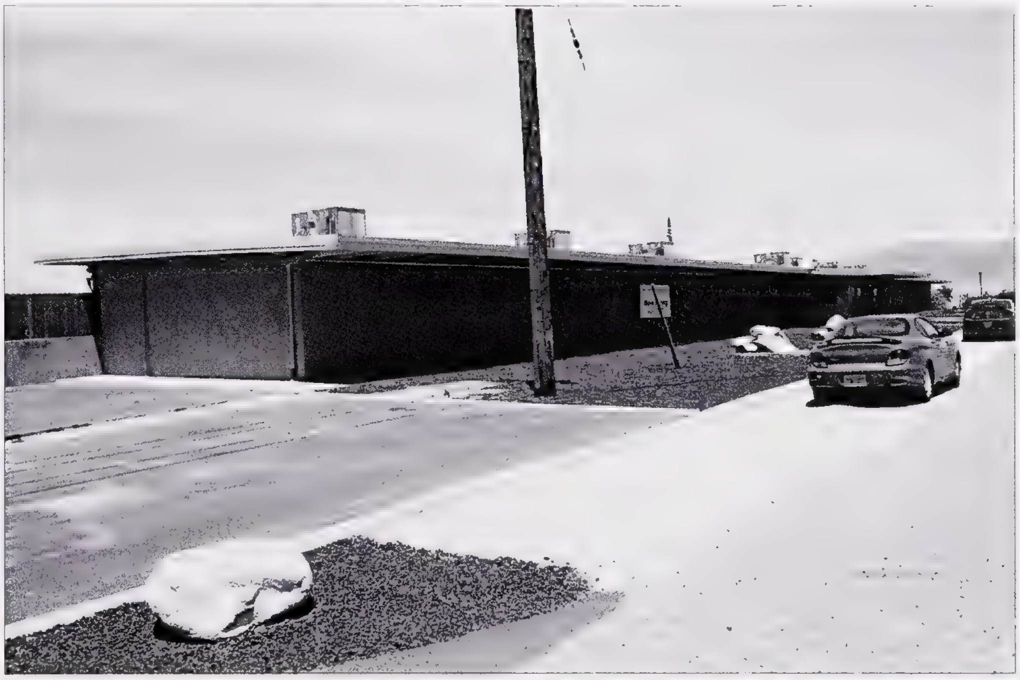
Property Name: Sky View Academy (S-2) **City, County:** Hawthorne, Mineral

SECTION NO: 13. Attached Documentation: Photograph Index **PAGE NO:** 8

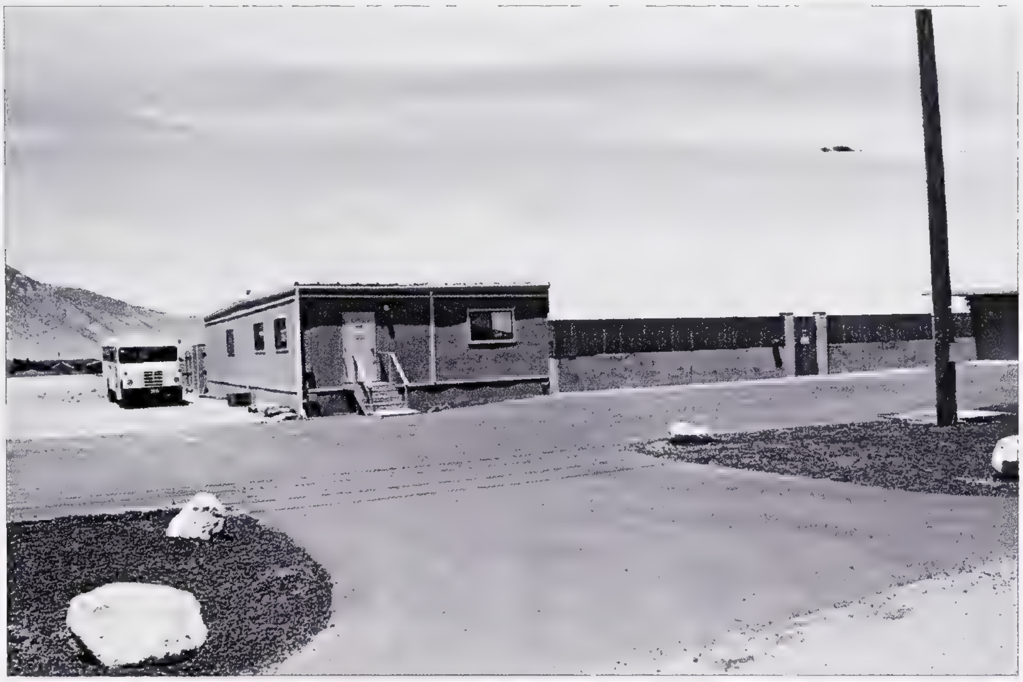
INDEX TO ATTACHED PHOTOGRAPHS

Project No: KEC-590 **B&W** **ISO:** 100 **Roll #:** 8 **No. Exp:** 3

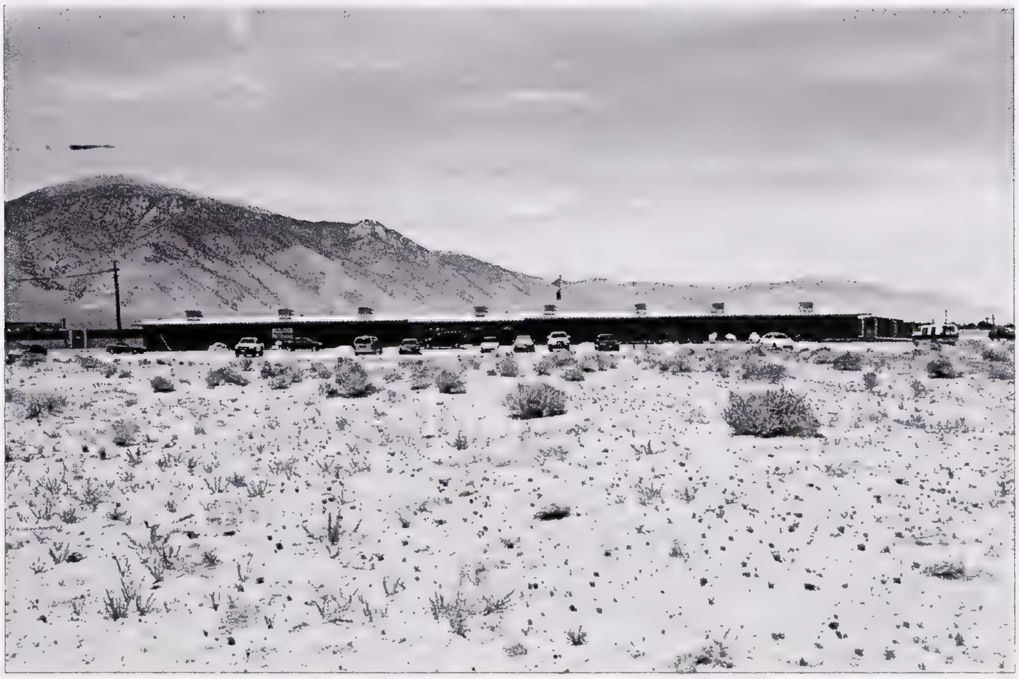
Photograph No. Proj.-Roll-Frame	Property Name Street Address City, County	Date of Photo/ Photographer	Location of Original Negative	Direction Facing	Description
590-8-22	Sky View Academy 10 21st Street Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	359°	Main Building, south and east elevations
590-8-23	**Sky View Academy 10 21st Street Hawthorne, Mineral**	**06/29/2007 M. E. Kimball**	**SHPO Carson City**	**359°**	**Main Building, south and east elevations**
590-8-24	**Sky View Academy 10 21st Street Hawthorne, Mineral**	**06/29/2007 M. E. Kimball**	**SHPO Carson City**	**231°**	**Associated Building A (Administration), south and east elevations**
590-8-25	**Sky View Academy 10 21st Street Hawthorne, Mineral**	**06/29/2007 M. E. Kimball**	**SHPO Carson City**	**308°**	**Main Building, east (primary) elevation**



590-8-23



590-8-24



590-8-25

NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCES INVENTORY FORM
CONTINUATION SHEET

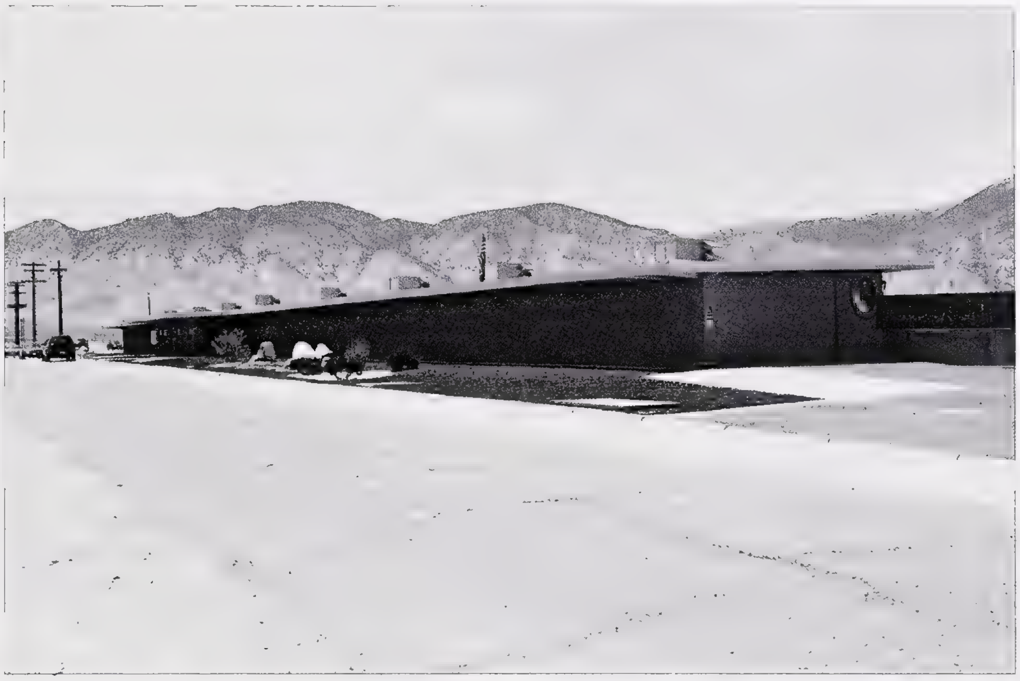
Property Name: Sky View Academy (S-2) **City, County:** Hawthorne, Mineral

SECTION NO: 13. Attached Documentation: Photograph Index **PAGE NO:** 10

INDEX TO ATTACHED PHOTOGRAPHS

Project No: KEC- **B&W** **ISO:** 100 **Roll #:** 9 **No. Exp:** 5

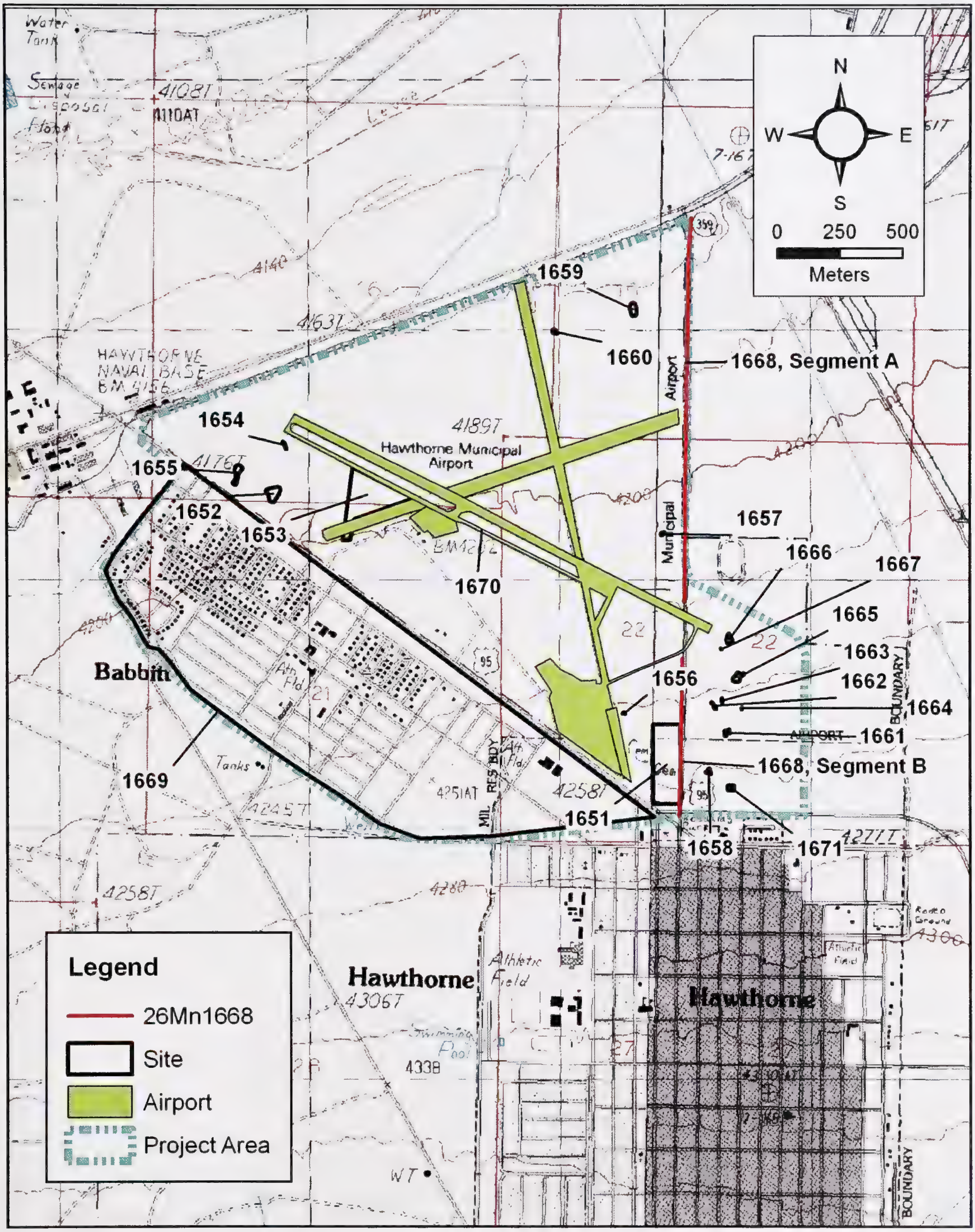
Photograph No. Proj.-Roll-Frame	Property Name Street Address City, County	Date of Photo/ Photographer	Location of Original Negative	Direction Facing	Description
590-9-4	**Sky View Academy 10 21st Street Hawthorne, Mineral**	**06/29/2007 M. E. Kimball**	**SHPO Carson City**	**250°**	**Main Building, east and north elevations**
590-9-5	Sky View Academy 10 21st Street Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	300°	Ancillary buildings (north), east and north elevations
590-9-6	Sky View Academy 10 21st Street Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	216°	Main Building and Ancillary, north and west elevations
590-9-7	**Sky View Academy 10 21st Street Hawthorne, Mineral**	**06/29/2007 M. E. Kimball**	**SHPO Carson City**	**220°**	**Main Building, north elevation; Ancillary Buildings, north elevation**
590-9-8	**Sky View Academy 10 21st Street Hawthorne, Mineral**	**06/29/2007 M. E. Kimball**	**SHPO Carson City**	**194°**	**Main Building and Ancillary, north and west elevations**



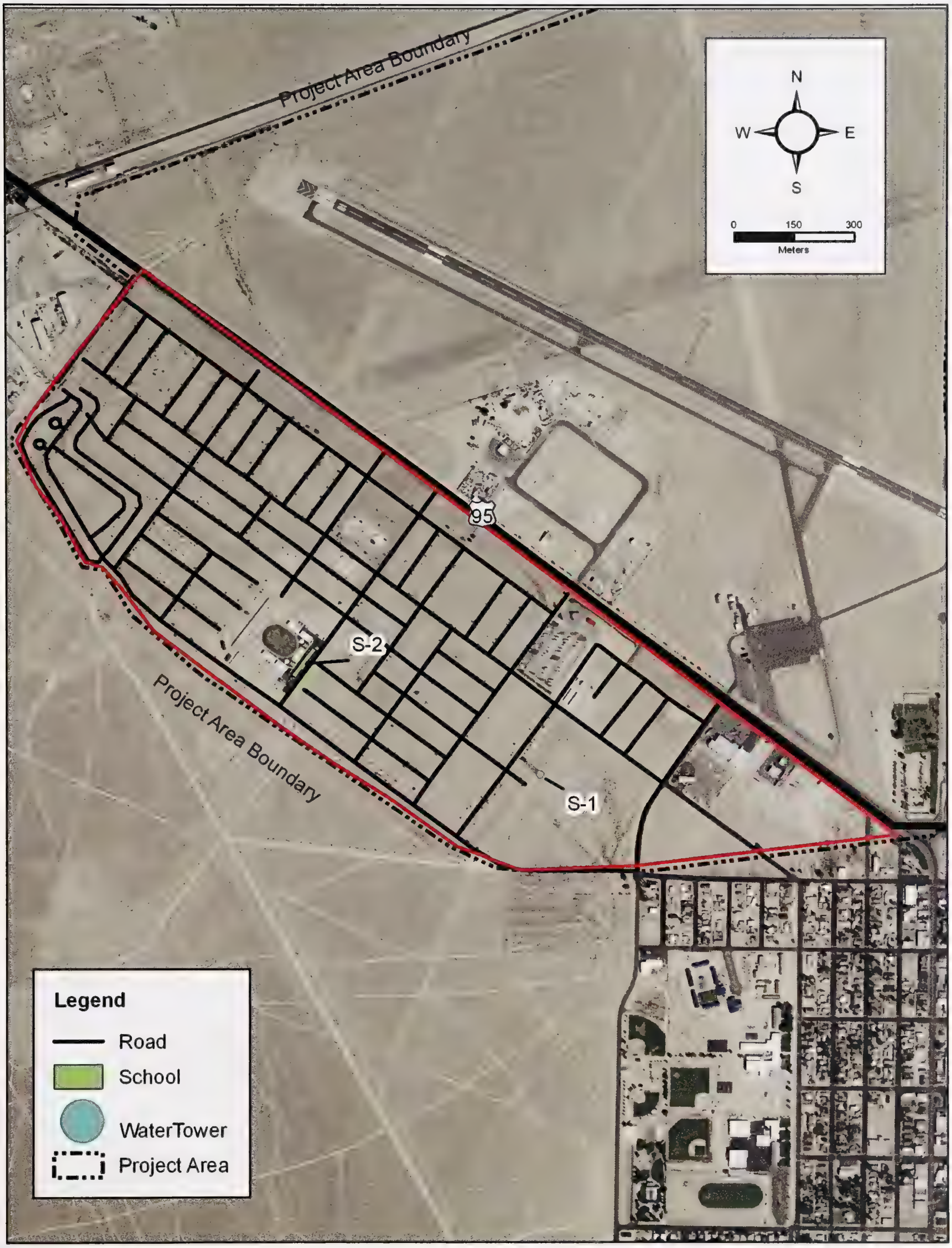
590-9-4

590-9-7

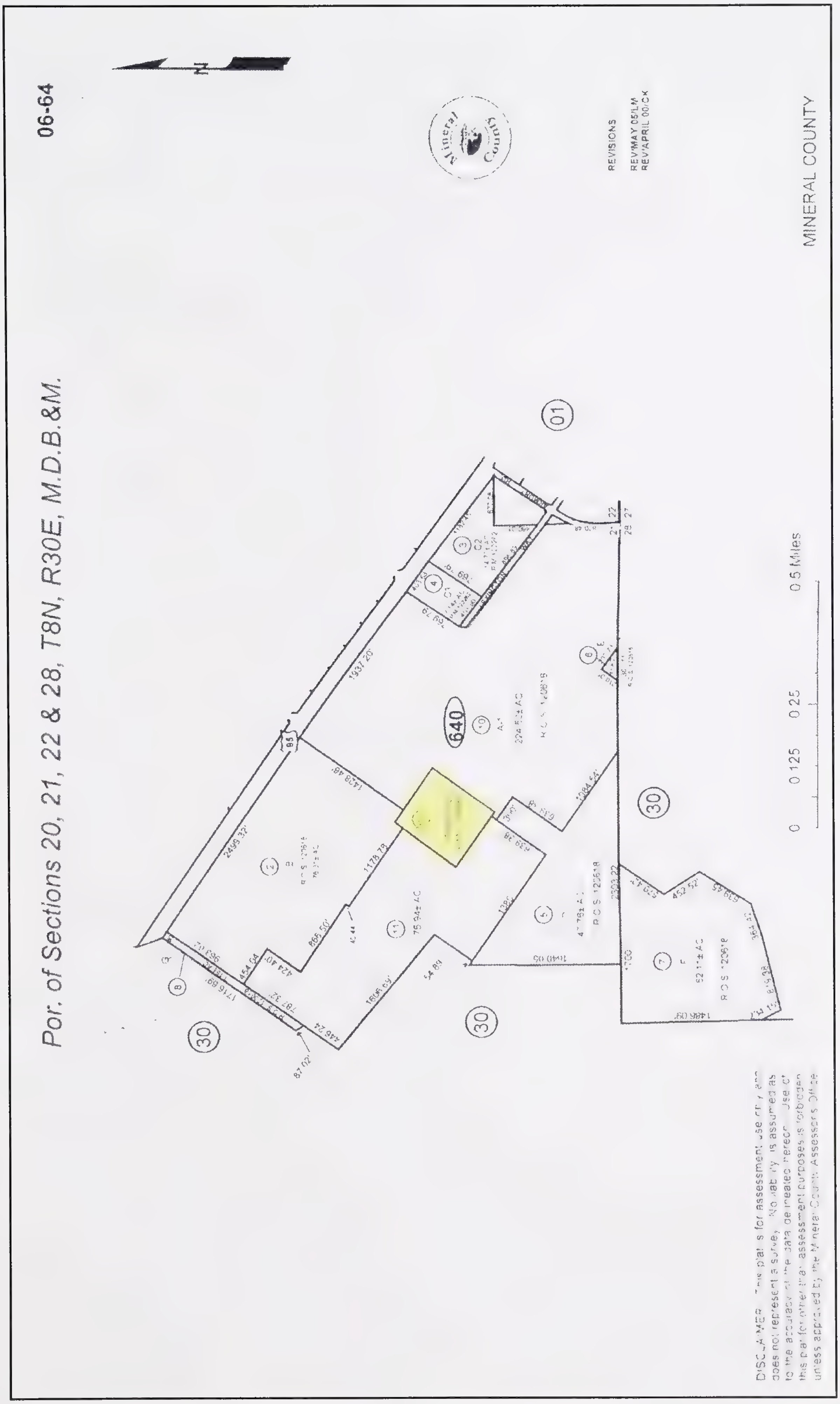
590-9-8



Site Location Map. Site 26Mn1669. Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., 1987. T.8N., R.30E.



Sketch Map of Babbitt. Aerial photograph courtesy of the National Agriculture Imagery Program (NAIP), United States Department of Agriculture.


06-64
Por. of Sections 20, 21, 22 & 28, T8N, R30E, M.D.B.&M.
N
REVISIONS
REV/MAY 05/LM
REV/APRIL 00/CK
MINERAL COUNTY
Mineral County
640
01
30
30
30
95
1937.20
2499.32
1428.48
1178.79
1084.54
866.50
424.40
454.04
963.07
1716.69
787.32
446.24
87.02
1608.69
1040.05
2303.22
452.52
639.45
1486.09
75.94± AC
47.78± AC
52.11± AC
224.62± AC
0 0.125 0.25 0.5 Miles
DISCLAIMER: This plat is for assessment use only, and does not represent a survey. No liability is assumed as to the accuracy of the data delineated hereon. Use of this plat for other than assessment purposes is forbidden unless approved by the Mineral County Assessor's Office.

Parcel 06-640-09. Base map courtesy of Mineral County Assessor's Office.

NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCES INVENTORY FORM

For Office Use Only

YR Built ______________
NR Eligible? Y/N
District? Y/N

KEC Resource ID No. S-3

1. PROPERTY NAME

1A. Historic Name

1B. Current/Common Name

Civil Air Patrol (CAP) Building (in 26Mn1670)

2. PROPERTY ADDRESS

Street Address	Hawthorne Airport
City, Zip Code	Hawthorne 89415
County	Mineral

3. PROPERTY OWNERSHIP

3A. Original Owner

Name	U.S. Navy Ammunition Depot

3B. Current Owner

Name	Mineral County
Mailing Address	P. O. Box 1450, Hawthorne, NV 89415
Assessor's Parcel Number (APN)	06-630-01

4. CURRENT PROPERTY STATUS

	Occupied	X	Vacant
	Other (please specify)		

5. PROPERTY USE

5A. Current Use

	Residential		Commercial		Religious
	Educational		Governmental		Industrial
X	Other (please specify) Not currently in use				

5B. Historic Use

X	Residential		Commercial		Religious
	Educational		Governmental		Industrial
	Other (please specify)				

Property Name/Address: Civil Air Patrol Building, Hawthorne, Mineral County **Page No.** 2

6. CURRENT ACCESS

	Permitted-local public resource	X	By owner permission only
	Permitted-state public resource		Restricted
	Permitted-federal public resource		Other (specify):

7. ACREAGE

0.04 acres	X	Estimated

8. PROPERTY LOCATION

8A. UTM Location/Reference(s)

[NAD 1983] **Zone** **mE** **mN**

8B. Township/Range/Section/Map

T.8N., R.30E., Section 21, *Hawthorne West, Nevada*, 7.5' Topographic Quadrangle U.G.S.G. (P.E. 1987)

9. RESOURCE DESCRIPTION

9A. Resource Type

X	Building		Structure		District		Object		Site
	Other (specify)								
	Contributing element to a historic district (specify district name)								

9B. Exterior Resource Features

	Basement	1	Number of stories
3	Porch		Balcony
	Dormer(s)		Chimney
	Other (please specify)		

9C-F. Materials and Systems (See instructions and enter codes from Appendix A)

9C. Roofing Material(s)	9D. Exterior Surface Material(s)
R-3 (composition shingles)	ES-25 (other - T-1-11)
9E. Building Structural System	9F. Foundation Structural System
SS-9 (wood - platform)	F-3 (concrete block)

9G. Written Description

See continuation sheet

9H. Associated Structures/Features

Associated structures/features *(submit Associated Structures Summary)*		Yes	X	No

9I. Integrity

	Original Site		
X	Altered (describe on continuation sheet)	Date altered	c. 1980s
X	Moved	Date moved	c. 1970s and c. 1980s
Moved from			

9J. Condition

	Good	X	Fair
	Poor		Ruins

9K. Threats

Potential for additional development in the surrounding area and demolition of the building, although the Civil Air Patrol has a long term lease with Mineral County for the location (Stephen Gustafson, personal communication 2007).

10. RESOURCE DATE AND SIGNIFICANCE

10A. Architect/Engineer/Designer

Blanchard & Maher, San Francisco, California (Molyneaux 1992:10)

10B. Builder/Contractor

Possibly Wm. Neil Company, Los Angeles, California (Molyneaux 1992:11)

10C. Architectural Style/Period (See Appendix B)

Vernacular Frame / World War II Era

10D. Construction Date(s)

	X	**Circa** 1945 (Stephen Gustafson, personal communication 2007)

10E. Date(s) of Significance

c. 1945-c. 1970

10F. Historic Resource Theme (See Appendix C)

Government and Politics (Federal Government - Military); Land Usage (Townsite Development and City Planning); Architecture

10G. National Register Eligibility (See Appendix D)

	Listed			Date listed			
	Eligible under:						
	Criterion A		Criterion B		Criterion C		Criterion D
	Other (specify)						
X	Not Eligible						
	Unevaluated						

10H. Justification

See continuation sheet

11. BIBLIOGRAPHY

See continuation sheet

12. FORM INFORMATION

Report Number/Name	KEC 590 / *A Cultural Resources Inventory of the Hawthorne Water Systems Project, Babbitt, Mineral County, Nevada*
Date Surveyed	June 29, 2007
Surveyor Name	D. J. McCarty
Company	Kautz Environmental Consultants, Inc.
Address	5200 Neil Road, Suite 200, Reno, Nevada 89502
Telephone Number	(775) 829-4411

13. ATTACHED DOCUMENTATION

X	Continuation Sheets
X	Photographs
X	Location Maps
	Plans
X	Other (please specify): Index to Attached Photographs, Parcel Map
X	Associated Structures Summary Form
	Historic District Addendum (if applicable)

Property Name: Civil Air Patrol Building (S-3) **City, County:** Hawthorne, Mineral

SECTION NO: 9G. Written Description **PAGE NO:** 5

Setting

The Civil Air Patrol (CAP) building is a former duplex located within the community of Babbitt, formerly situated on the southeast side of U. S. Highway 95. Currently, the building is located on the northwest side of the highway, next to several buildings associated with a helicopter pad in the south end of the Hawthorne Muncipal Airport complex. Development is limited to the buildings, fencing, asphalt access road, parking areas, and pad. A single building is present to the southeast, and appears to serve as the administrative office for the airport. The area immediately around this building consists of sandy soil and limited natural vegetation.

Description

This building is a single-story, wood-frame, Vernacular Frame, built on a simple rectangular plan as a duplex during the early 1940s. According to Stephen Gustafson (personal communication 2007), because it was demountable, it likely was constructed in c. 1945. Other similar buildings, possibly semi-permanent housing, had no “floors” to provide for future moving from their concrete footings/foundations. The current foundation is concrete block. Walls are clad with T-1-11 boards, except for the gable peaks. These have horizontal composition wood product shaped like boards and attached to the gables similarly to the T-1-11 siding. The roof is a normal-pitched side-gable sheathed with composition shingles. Eaves are open and medium, with exposed fascia boards at the eaves. Visible under the shingles is the original board sheathing. There is no chimney, but there are two metal flues on the east pitch. There are three entries on the building, two doors on the east elevation represent the former entries to the individual duplex units. Each has a side door (north and south) exiting the kitchen area. On the east elevation, the roof cantilevers approximately 3 feet over the doors, which are centered. Below the doors is a concrete stoop with no steps. A similar concrete stoop, with no steps, is evident at each of the side exits.

Fenestration is symmetrical, consisting of all original, wood-framed windows surrounded by simple wood trim. Several have aluminum screens. On the east elevation, the primary entries each have a wood door. These have a multi-light (3 lights stacked) above a single panel. North and south of each door is a ribbon of three four-over-four double-hung sash windows with beveled stiles. Beyond the ribbons are single six-over-six double-hung sash windows. These are located in the kitchen area of the former duplex units. The northern window has two fans in two of the upper-most muntins to provide ventilation in the north unit kitchen. Metal vents are evident below the windows on each end, although the one on the south end is covered over with a shingle. The doors on the north and south elevations are wood. Both have a single light over a single panel. The south door has a smaller panel below a larger light. The center of each elevation has a three-light awning for the two bathrooms. Above these, in the gable peaks, are metal-louvered vents. On the west ends are a single six-over-six double-hung sash type window. Below these are vents; only the north is covered with a shingle. The south elevation has a door in the concrete block providing access to the crawl space. The west elevation mirrors the east elevation, with two centered ribbons of three windows (four-over-four double-hung) and single end windows (six-over-six double-hung). Along the base of the building are four evenly-spaced vents, three of which are covered with a composition shingle.

Though the building was not entered, looking through the windows indicated that the interior has been greatly altered. In Babbitt, there were two duplex floor plans. Plan A was a mirror style, with each unit containing a living room, kitchen, bathroom, two bedrooms, and three closets (Residential Unit Plan c. 1941a). Plan B had the same number of rooms and closets, but one unit had one bedroom, and the other unit had three (Residential Unit Plan c. 1941b). With removal of the central walls, leaving only one bedroom on each end, there were no visible indications (viewed through the windows) determining which plan was used to construct this building.

Within the large 494.89-acre parcel, this building covers an area about 56 feet by 30 feet. Though these duplexes are all described as being 27 feet by 55.33 feet, measurements taken in the field are 27 feet 3 inches by 55 feet 9 inches.

Property Name: Civil Air Patrol Building (S-3) **City, County:** Hawthorne, Mineral

SECTION NO: 10H. Justification **PAGE NO:** 6

Themes potentially related to the evaluation of this resource include "Architecture," "Land Usage (Townsite Development and City Planning)," and "Government and Politics (Federal Government - Military)." The geographic limit is at the local level, community of Hawthorne, and the current project area. The associated chronological period is the World War II Era to Late 20th Century, c. 1945-c. 1970. Although this is a representative example of the general architecture of the duplexes built to house civilian employees of the Hawthorne Naval Ammunition Depot (NAD), the building no longer retains its integrity. It has been moved twice, the setting and feeling initially associated with it no longer are present, and though many exterior features remain intact, the siding has been altered with a modern material, affecting workmanship and materials.

With regard to significance, it is more than likely that this building was not included in the two Historic American Building Surveys (HABS) conducted in 1984 and 1992, or the National Register of Historic Places Registration Nomination in 1989. As a duplex in the community of Babbitt, this building was part of events occurring during World War II, the Korean War, and, to a lesser extent, the Viet Nam War in the storage and distribution of munitions used by first the U.S. Navy, and later the U.S. Army. However, because it has been moved twice since this period of significance, and no longer maintains an association with the Hawthorne Army Ammunition Plant, it no longer retains significance under Criterion a. At this time there is no known significant association with the lives of persons of importance to the community, Hawthorne NAD, state or nation (Criterion b). Though this Vernacular Frame building retains many of the architectural features associated with the housing at Babbitt, the integrity of association, feeling, workmanship, and material have been diminished (Criterion c). The building is unlikely to yield additional research opportunities for furthering our understanding of the historical developments associated with Babbitt and the Hawthorne NAD, or defense housing architecture on a local, regional or national level (Criterion d). Consequently, it is the opinion of the evaluator that this historic period former duplex is not significant, and not eligible for nomination to the National Register of Historic Places (NRHP).

SECTION NO. 11. Bibliography

Freeman, J. C., T. Myers, and G. M. Marchant.
1992 DELIVERY ORDER NO. 0011, Hawthorne Army Ammunition Plant/Historical American Building Survey Documentation of the Babbitts Area, Hawthorne, Nevada (HABS No. NV-23). Komatsu/Rangel, Fort Worth, Texas. Submitted to U.S. Army Corps of Engineers, Environmental and Planning Division, Fort Worth, Texas. Contract DACA 63-89-D-0063. On file, Nevada State Historic Preservation Office, Carson City, Report No. MN-8.

Koval, A. B.
1989 *National Register of Historic Places Registration Form: Hawthorne Naval Ammunition Depot (Hawthorne Army Ammunition Plant).* Rainshadow Associates, Carson City, Nevada. On file, Nevada State Historic Preservation Office, Carson City.

MacDonald and Mack Partnership and Building Technology
1984 *Historic Properties Report Hawthorne Army Ammunition Plant, Hawthorne, Nevada.* MacDonald and Mack Partnership, Minneapolis, Minnesota and Building Technology, Silver Spring, Maryland. Contract No. CK-00001-2-0033. On file, Nevada State Historic Preservation Office, Carson City, Report No. MN-1.

National Register Staff
1997 *How to Apply the National Register Criteria for Evaluation.* National Register Bulletin. USDI National Park Service, Cultural Resources, Washington, D.C.

Residential Unit Plan
c. 1941a Babbitt 1 & 3 Bedroom Duplex. On file, Miscellaneous, Mineral County Museum, Hawthorne, Nevada.

c. 1941b Babbitt 2 Bedroom Duplex. On file, Miscellaneous, Mineral County Museum, Hawthorne, Nevada.

NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCES INVENTORY FORM
CONTINUATION SHEET

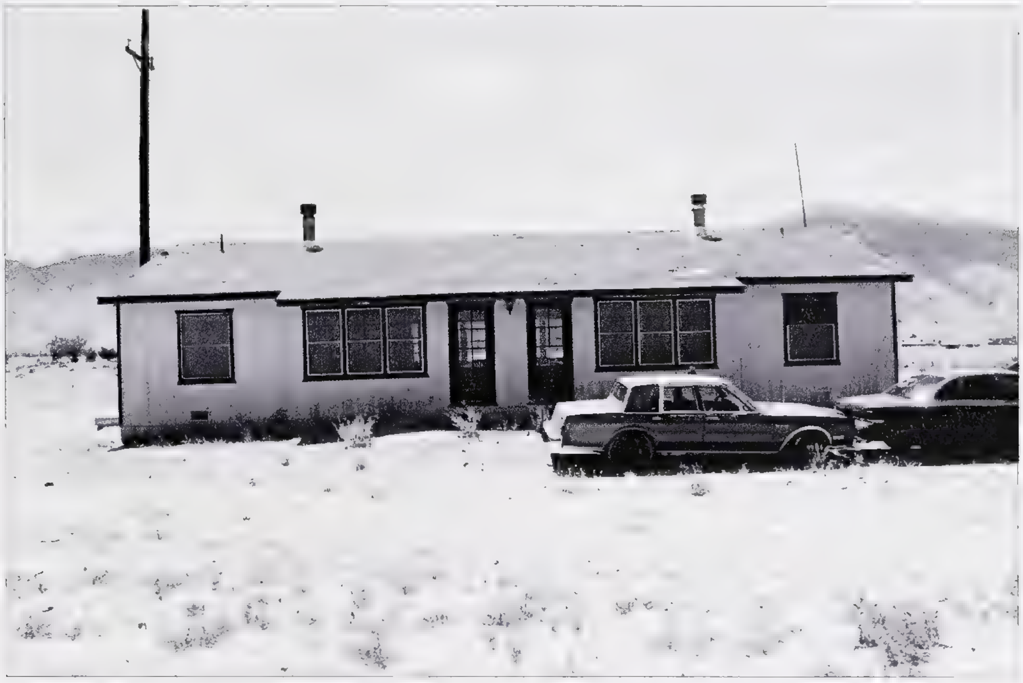
Property Name: Civil Air Patrol Building (S-3) **City, County:** Hawthorne, Mineral

SECTION NO: 13. Attached Documentation: Photograph Index **PAGE NO:** 7

INDEX TO ATTACHED PHOTOGRAPHS

Project No: KEC-590 **B&W** **ISO:** 100 **Roll #:** 9 **No. Exp:** 9

Photograph No. Proj.-Roll-Frame	Property Name Street Address City, County	Date of Photo/ Photographer	Location of Original Negative	Direction Facing	Description
590-9-11	Civil Air Patrol Building Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	260°	East (primary) elevation
590-9-12	**Civil Air Patrol Building** **Hawthorne, Mineral**	**06/29/2007** **M. E. Kimball**	**SHPO** **Carson City**	**260°**	**East (primary) elevation**
590-9-13	Civil Air Patrol Building Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	175°	North elevation
590-9-14	**Civil Air Patrol Building** **Hawthorne, Mineral**	**06/29/2007** **M. E. Kimball**	**SHPO** **Carson City**	**142°**	**North and west elevations**
590-9-15	Civil Air Patrol Building Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	18°	West elevation
590-9-16	Civil Air Patrol Building Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	355°	South elevation
590-9-17	**Civil Air Patrol Building** **Hawthorne, Mineral**	**06/29/2007** **M. E. Kimball**	**SHPO** **Carson City**	**Detail**	**Civil Air Patrol sign**
590-9-18	**Civil Air Patrol Building** **Hawthorne, Mineral**	**06/29/2007** **M. E. Kimball**	**SHPO** **Carson City**	**318°**	**South and east elevations**
590-9-19	**Civil Air Patrol Building** **Hawthorne, Mineral**	**06/29/2007** **M. E. Kimball**	**SHPO** **Carson City**	**104°**	**Context view**
590-9-22	Civil Air Patrol Building Hawthorne, Mineral	06/29/2007 M. E. Kimball	SHPO Carson City	290°	Context view



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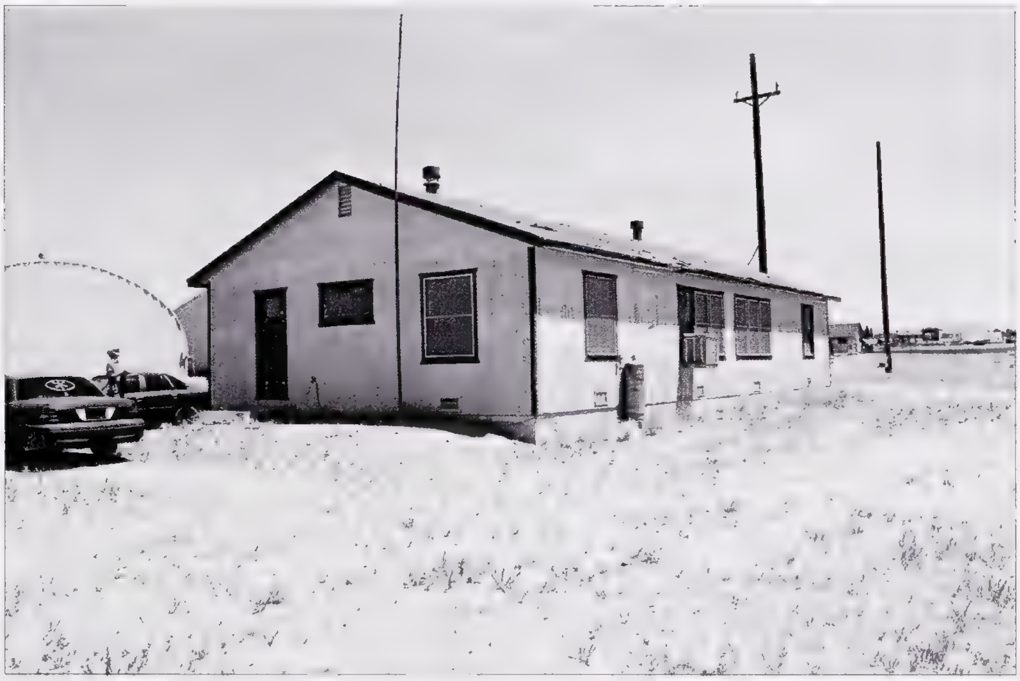

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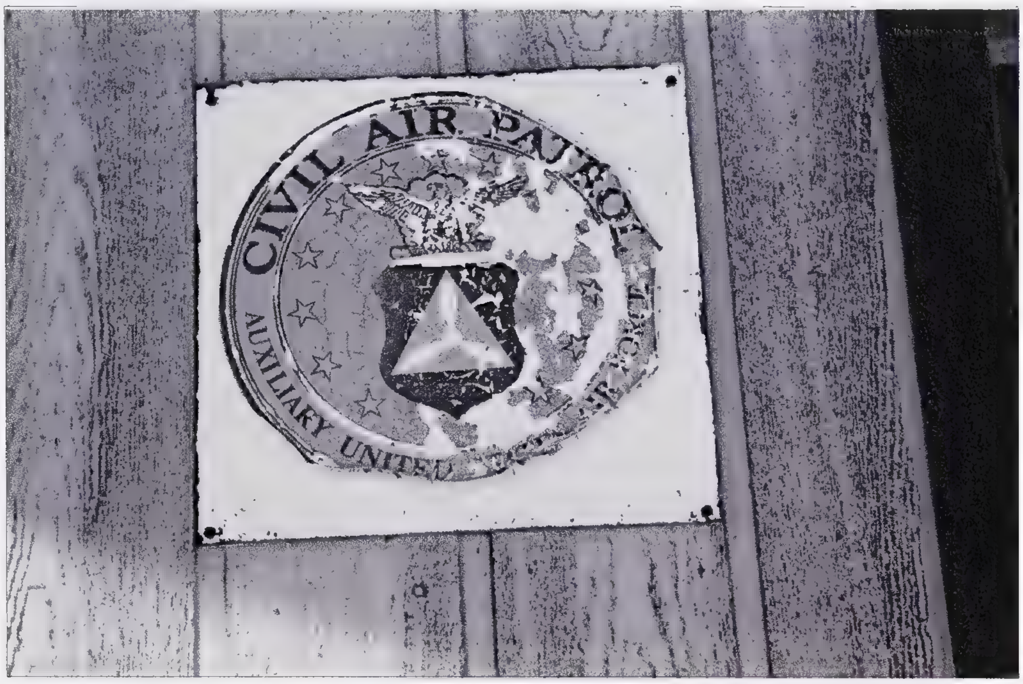

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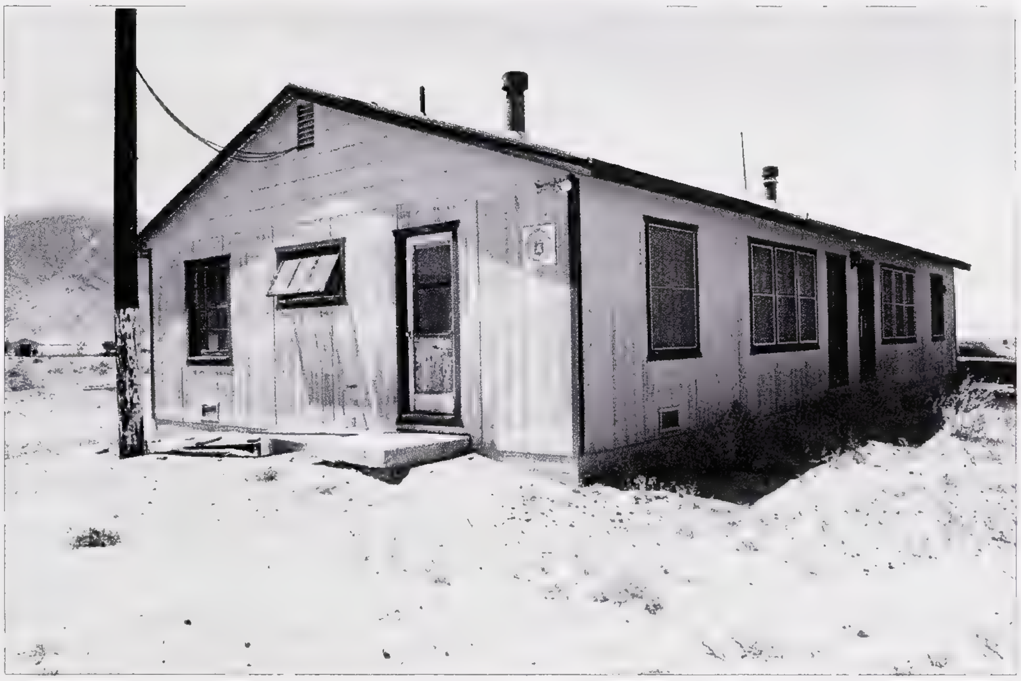

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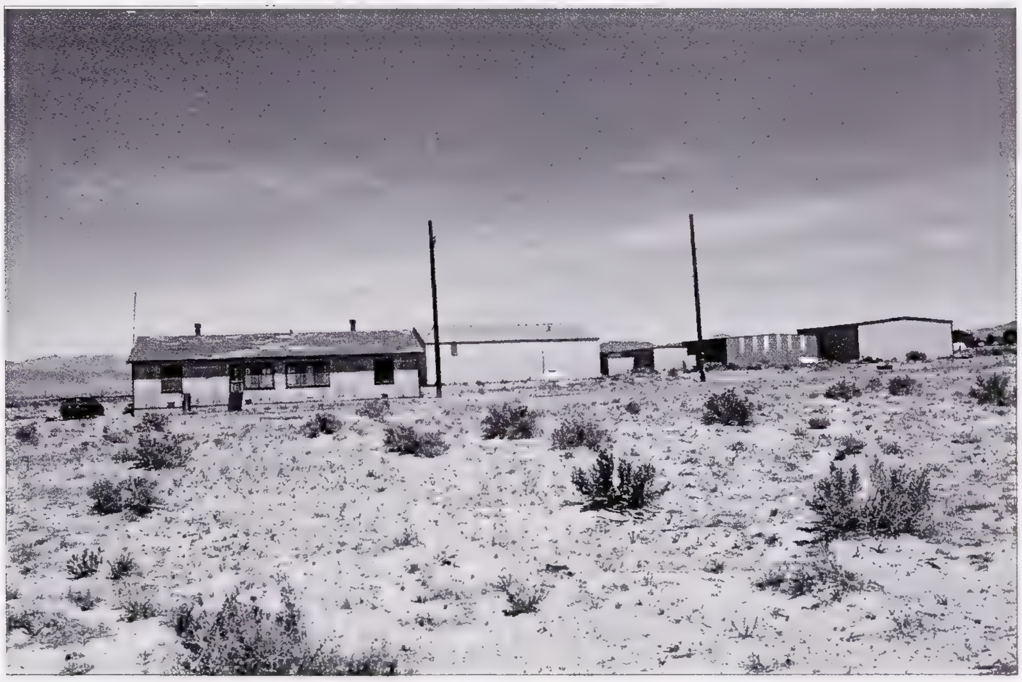
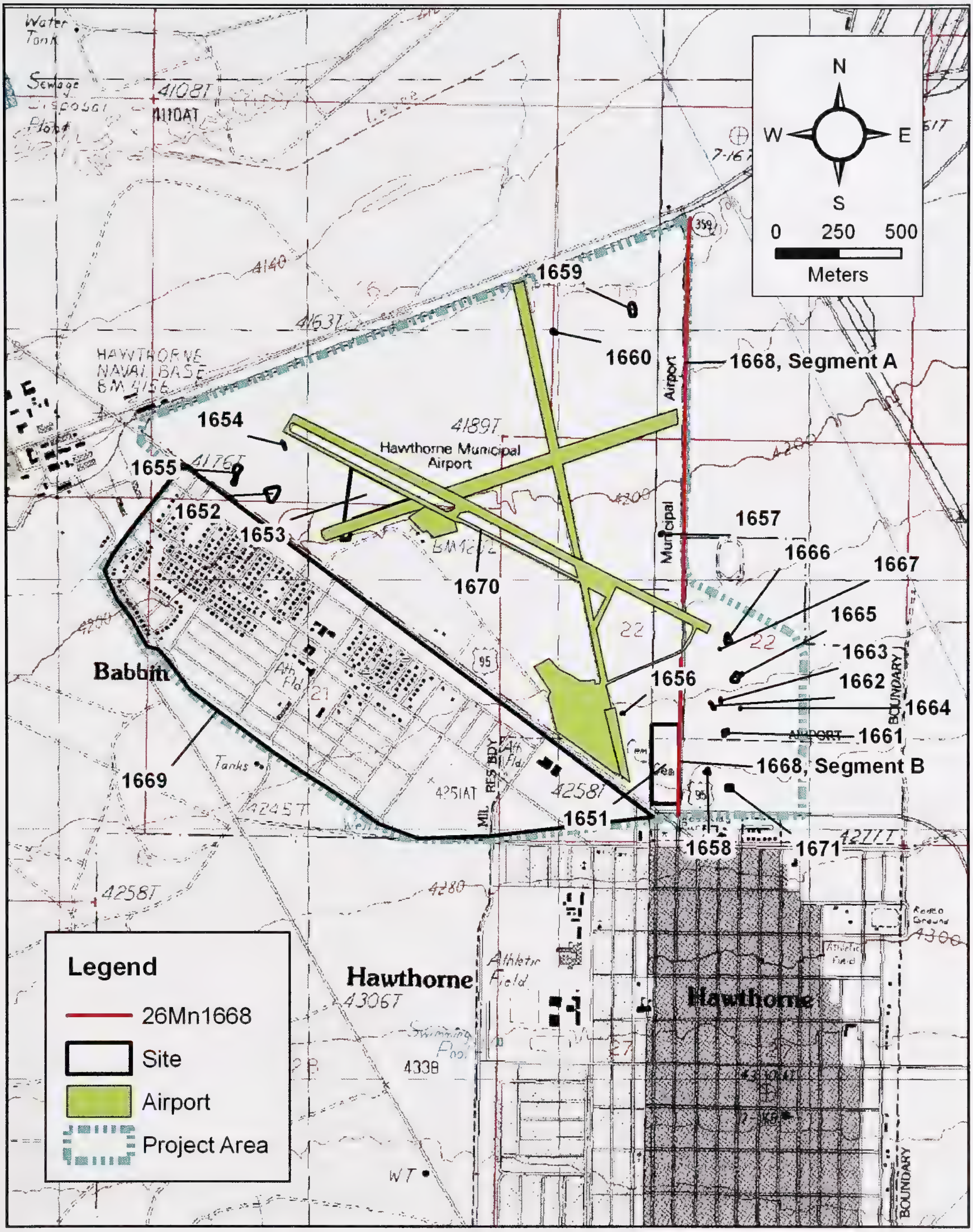
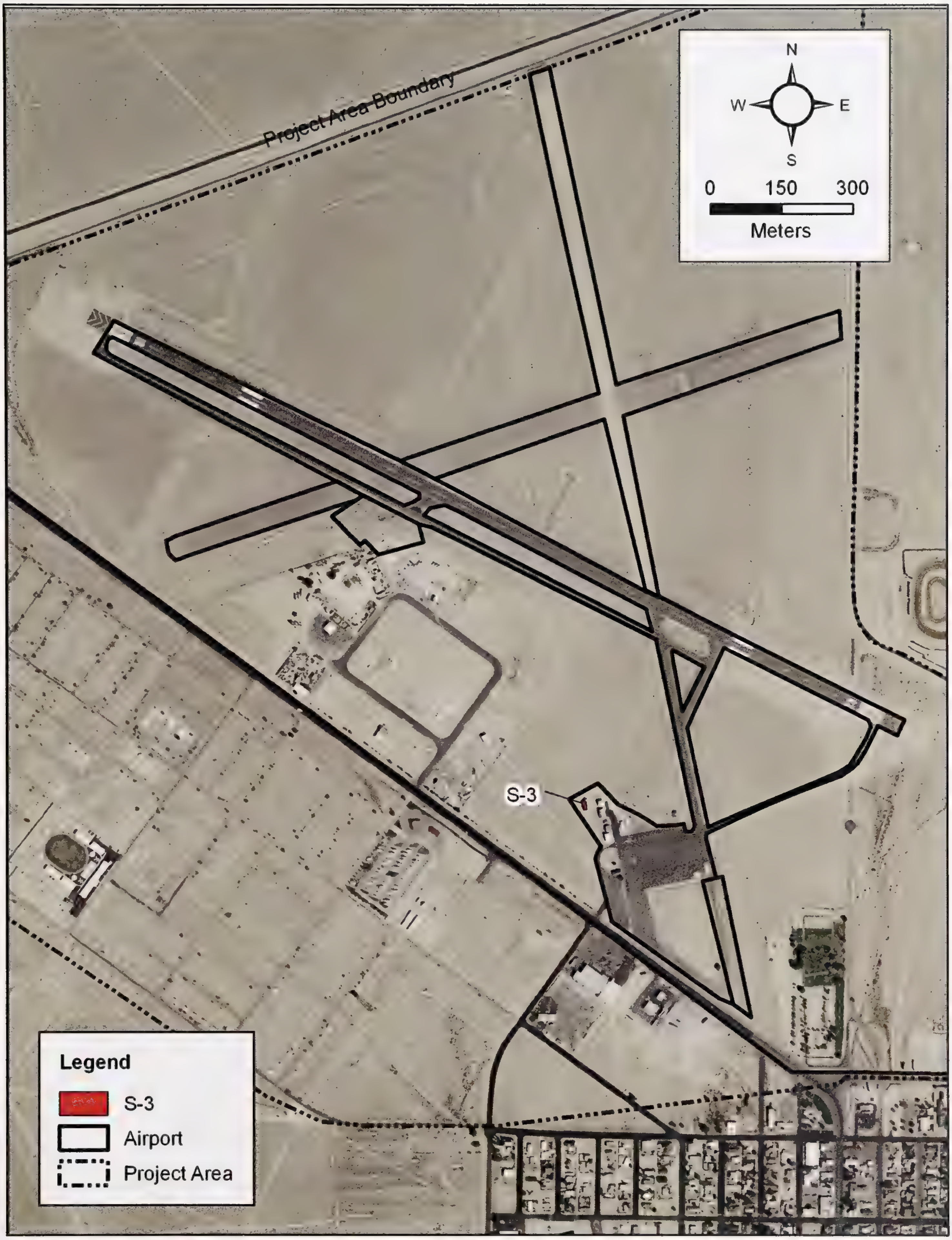


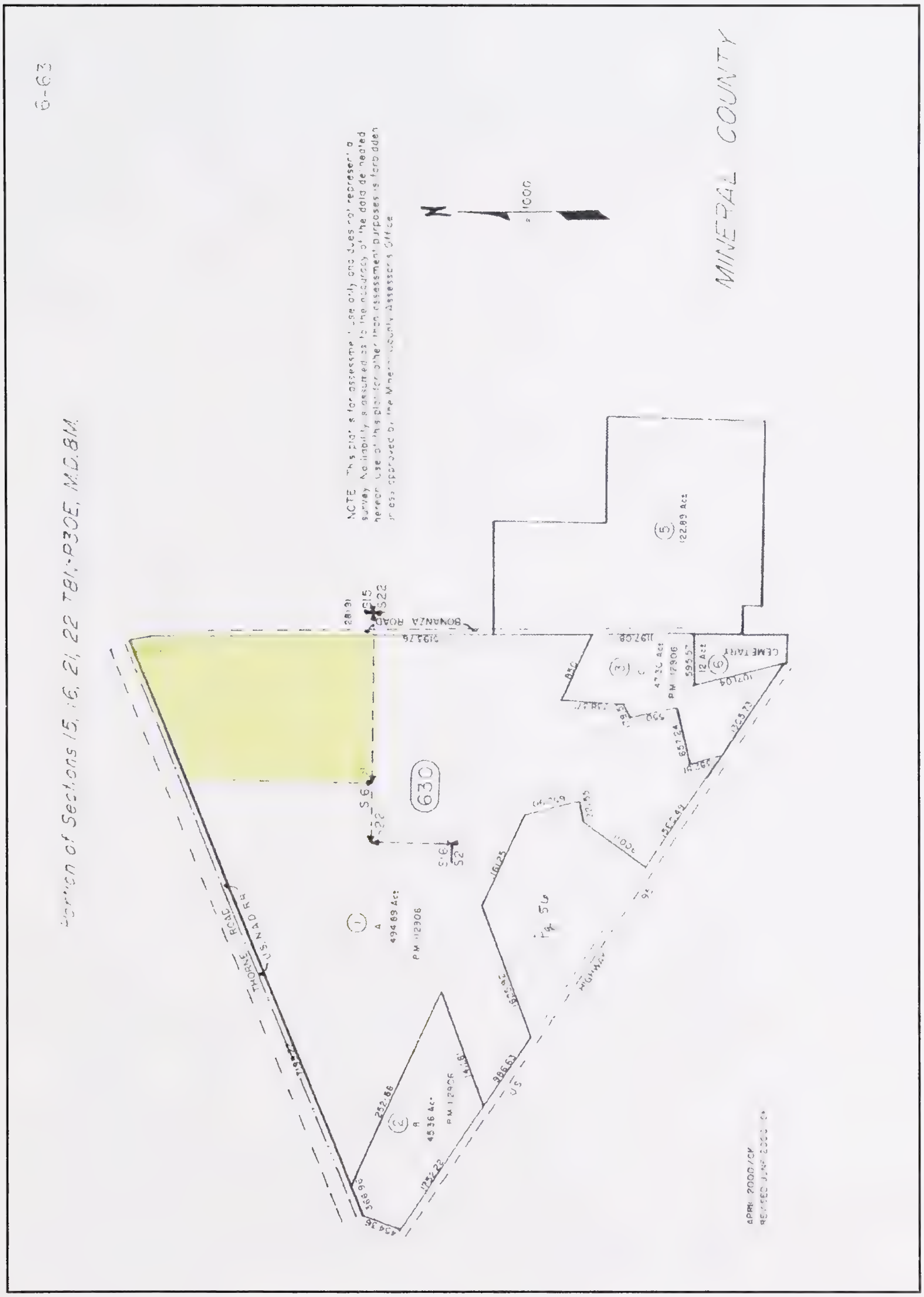
590-9-19



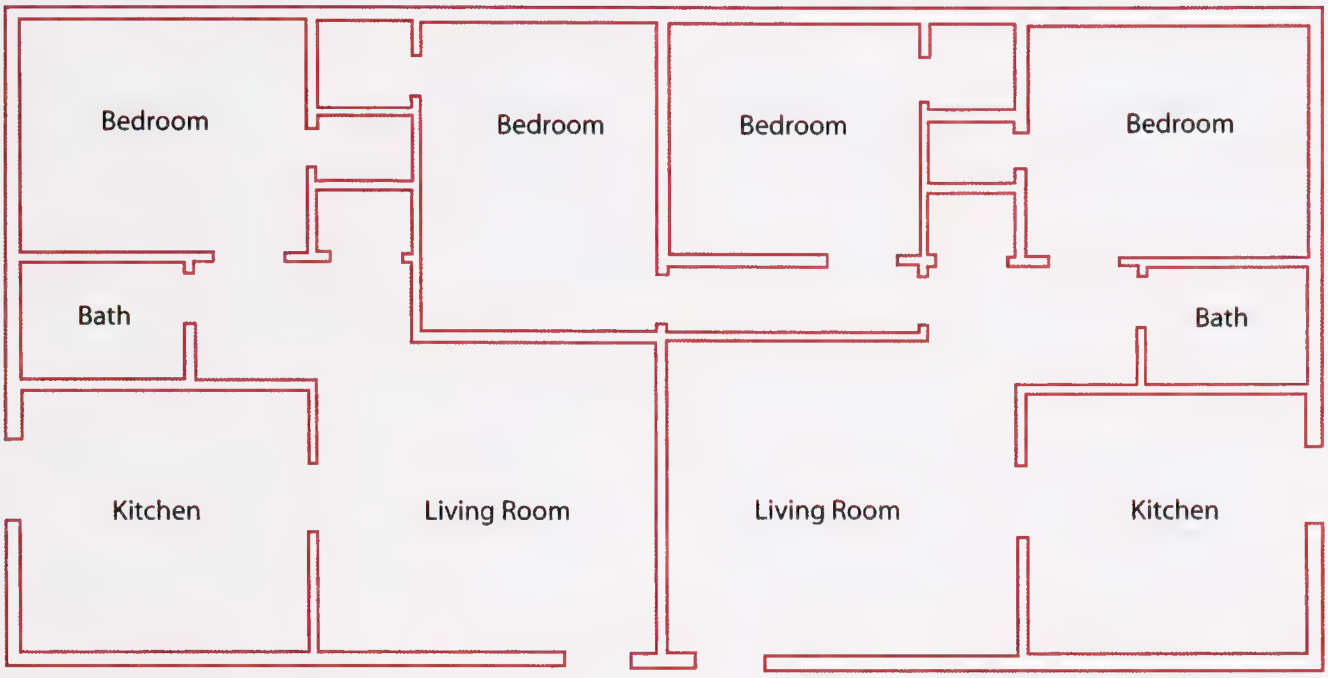
Site Location Map. Site 26Mn1670. Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., 1987. T.8N., R.30E.



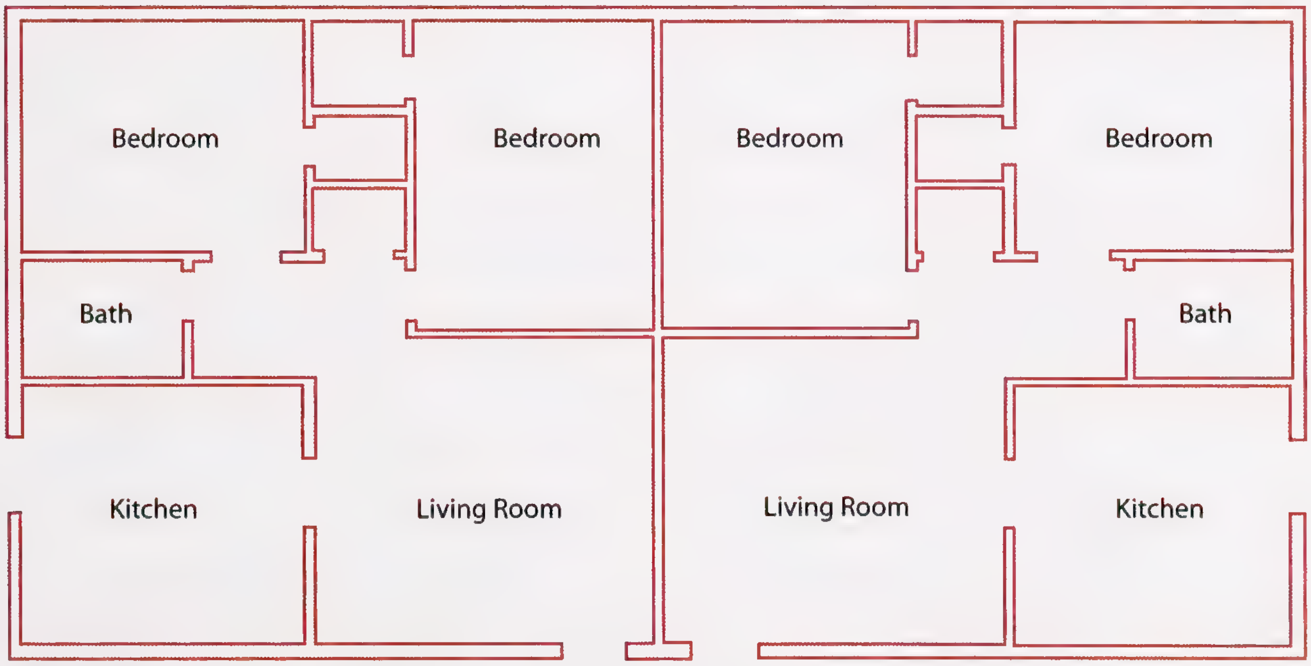
Site Sketch Map, Site 26Mn1670. Aerial photograph courtesy of National Agriculture Imagery Program (NAIP), United States Department of Agriculture.



Parcel 06-630-01. Base Map Courtesy of Mineral County Assessor's Office.



1 & 3 Bedroom Duplex Floor Plan



2 Bedroom Duplex Floor Plan

Original Scale 1/8" = 1' 0" (Reduced)

Floor Plans.

NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCES INVENTORY FORM

For Office Use Only	
YR Built	____________
NR Eligible?	Y/N
District?	Y/N

KEC Resource ID No. S-4

1. PROPERTY NAME

1A. Historic Name

Sewage Treatment Facility

1B. Current/Common Name

Sewage Treatment Facility (26Mn1671)

2. PROPERTY ADDRESS

Street Address	
City, Zip Code	Hawthorne 89415
County	Mineral

3. PROPERTY OWNERSHIP

3A. Original Owner

Name	

3B. Current Owner

Name	Stephen Gustafson, Director, Hawthorne Utilities
Mailing Address	395 “E” Street, P. O. Box 1448, Hawthorne, NV 89415
Assessor's Parcel Number (APN)	006-630-05

4. CURRENT PROPERTY STATUS

	Occupied	X	Vacant
	Other (please specify)		

5. PROPERTY USE

5A. Current Use

	Residential		Commercial		Religious
	Educational		Governmental		Industrial
X	Other (please specify) Not in use				

5B. Historic Use

	Residential		Commercial		Religious
	Educational	X	Governmental - City		Industrial
	Other (please specify)				

6. CURRENT ACCESS

	Permitted-local public resource	X	By owner permission only
	Permitted-state public resource		Restricted
	Permitted-federal public resource		Other (specify):

7. ACREAGE

0.14 acres	X	Estimated

8. PROPERTY LOCATION

8A. UTM Location/Reference(s)

[NAD 1983] **Zone**	**mE**	**mN**

8B. Township/Range/Section/Map

T.8N., R.30E., Section 22, *Hawthorne East, Nevada*, 7.5' Topographic Quadrangle U.S.G.S. (P.E. 1987)

9. RESOURCE DESCRIPTION

9A. Resource Type

	Building	X	Structure		District		Object		Site
	Other (specify)								
	Contributing element to a historic district (specify district name)								

9B. Exterior Resource Features

	Basement		Number of stories
	Porch		Balcony
	Dormer(s)		Chimney
	Other (please specify)		

9C-F. Materials and Systems (See instructions and enter codes from Appendix A)

9C. Roofing Material(s)	9D. Exterior Surface Material(s)
R-19 (other - concrete and metal plate)	
9E. Building Structural System	9F. Foundation Structural System
SS-1 (concrete)	F-2 (concrete)

9G. Written Description

See continuation sheet

9H. Associated Structures/Features

Associated structures/features *(submit Associated Structures Summary)*	X	Yes		No

9I. Integrity

X	Original Site		
X	Altered (describe on continuation sheet)	Date altered	1940s
	Moved	Date moved	
Moved from			

9J. Condition

	Good	X	Fair
	Poor		Ruins

9K. Threats

Potential for redevelopment of the immediate area and removal of the facility.

10. RESOURCE DATE AND SIGNIFICANCE

10A. Architect/Engineer/Designer

Unknown

10B. Builder/Contractor

Unknown

10C. Architectural Style/Period (See Appendix B)

Vernacular Masonry and Wood / World War II Era

10D. Construction Date(s)

1940s (Stephen Gustafson, personal communication 2007)		Circa

10E. Date(s) of Significance

1940s-1970s

10F. Historic Resource Theme (See Appendix C)

Land Usage (Townsite Development and City Planning); Architecture

10G. National Register Eligibility (See Appendix D)

	Listed			Date listed		
	Eligible under:					
	Criterion A		Criterion B		Criterion C		Criterion D
	Other (specify)					
X	Not Eligible					
	Unevaluated					

10H. Justification

See continuation sheet

11. BIBLIOGRAPHY

See continuation sheet

12. FORM INFORMATION

Report Number/Name	KEC 590 / *A Cultural Resources Inventory of the Hawthorne Water Systems Project, Babbitt, Mineral County, Nevada*
Date Surveyed	June 29, 2007
Surveyor Name	D. J. McCarty
Company	Kautz Environmental Consultants, Inc.
Address	5200 Neil Road, Suite 200, Reno, Nevada 89502
Telephone Number	(775) 829-4411

13. ATTACHED DOCUMENTATION

X	Continuation Sheets
X	Photographs
X	Location Maps
	Plans
X	Other (please specify): Index to Attached Photographs, Parcel Map
X	Associated Structures Summary Form
	Historic District Addendum (if applicable)

NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCE INVENTORY FORM
ASSOCIATED STRUCTURES/FEATURES SUMMARY FORM

Property Name: Sewage Treatment Facility **City, County:** Hawthorne, Mineral **Page No.** 5

If this inventory involves associated structures or features, please include this form with the SHPO submission. Include continuation sheet if necessary.

ASSOCIATED STRUCTURES/FEATURES SUMMARY				
Number of associated structures: 2		Contributing	X	Noncontributing
Number of associated features:		Contributing		Noncontributing

Structure/Feature #1	Structure 1	**Structure/Feature #2**	Structure 2
Historic Name	pump house	Historic Name	valve pit
Property Type	building	Property Type	structure/building
Historic Use	shelter for pump valves	Historic Use	part of sewage treatment system
Current Use	abandoned	Current Use	abandoned
Style (if applicable)	Vernacular Frame / World War II Era	Style (if applicable)	Vernacular Frame and Masonry / World War II Era
Materials	wood	Materials	wood, concrete
Construction Date	1940s	Construction Date	1940s
Integrity	Fair	Integrity	Fair
Map Reference Code	A - on S4	Map Reference Code	B - to the west of S4

NOTE: Refer to *Section 9G. Written Description* for narrative data on associated buildings, structures, and features.

Property Name: Sewage Treatment Facility **City, County:** Hawthorne, Mineral

SECTION NO: 9G. Written Description **PAGE NO:** 6

Setting

This sewage facility is located to the east of the Hawthorne Cemetery in the southeast portion of the project area. To the south is the U.S. 95 Truck Route bypass. The surrounding area on this side of the highway has little development, except for roads into the airport and to other facilities to the north. Vegetation includes natural sagebrush and rabbitbrush, with shrubs against the fence surrounding the facility.

Description

The primary structure, constructed in the 1940s (Stephen Gustafson, personal communication 2007) is constructed of poured concrete with an underground portion housing a series of tanks for the treatment of sewage. It measures approximately 36 square feet. At the north end is Associated Building B, a valve pit, and a concrete entry tube for a valve pit. Along a small portion of the north, all of the east and most of the south elevations is an open conduit. Pipe rails are attached to the structure at the north end, and along the wall from there to the northeast corner, and along most of the east length. Near the south end of the east wall is a slight extension with the gear drive unit attached to the wall. The motor for the unit has been removed. To the south of this, near the wall, is a concrete tube to a valve pit. It is open and measures approximately 12 inches in diameter. At the southeast is the intake trough, which has a grill. On the structure at the southeast corner is a metal plate that probably provides access to the tanks. A large metal lid is located on the top of the structure. The system was devised to deliver the influent through the southeast trough into the series of tanks, which separated solid material from the liquid, did a form of dousing in the upper tanks, possibly adding chlorine at that time, and then sending the resultant effluent to the valve pit for distribution to the drying beds to the north or northeast. It is unknown what the vent-like part of the south elevation is, though it may be providing ventilation for the pumps. Associated Building A was added to provide shelter for the pump valves, although there is one valve situated just to the east. This part of the treatment process apparently is a closed system, with access necessary only for maintenance through the metal lids.

There are three nearly intact and pieces of concrete pipes lying on the ground north of Structure 4 and west of Associated Building B. The facility has been closed since the 1970s and has been fenced for safety reasons. Fencing consists of metal posts with a “Y” at the top, 6-foot high metal wire, and strands of barbed wire attached to the “Y’s.” Extending to the north and northeast are remnants of concrete pipes and disturbed areas suggesting the removal of underground pipes. This appears to be part of a line that may have distributed effluent to the drying beds from the valve pit (Associated Building B). This line is 157 feet (48 m) long.

Associated Building(s)

Building A: A wood-framed single-story building in a simple square plan, located atop a ledge of the east portion of the sewage tank facility. Walls are clad with horizontal lapped or beveled siding. Corner boards are evident. The building has a low-pitched hipped, pyramidal roof with exposed wood slats; sheathing is gone. Eaves are not present due to a loss of the roof covering, but would have been narrow to moderate based on the length of the rafter tails. The two openings have simple wood trim with butt joints. Neither the door on the south elevation, nor the window on the east elevation remain. Based on framing in the window surround, the type was a tall rectangular, probably a double-hung sash, with a wood sill. A goose-neck exterior light is over the window. The purpose of this building, added in the c. 1960s was housing for the pump valves (Stephen Gustafson, personal communication 2007).

Building B: This structure has a concrete foundation and lower walls, with a wood-framed upper portion. The framing (wood studs) are evident on the north elevation where the wall cladding is incomplete. Cladding is generally horizontally placed wood board. The roof is a moderately sloped shed type (to the east) with wood board slats. The eaves are narrow to moderate with exposed rafters and tails. The entry is through an opening with a wood surround on the west elevation. The door is no longer present. The lower walls and foundation are made of poured concrete. This was a valve pit used for distribution of the effluent to the drying beds located to the north and/or northeast.

Property Name: Sewage Treatment Facility (S-4) **City, County:** Hawthorne, Mineral

SECTION NO: 10H. Justification **PAGE NO:** 7

Themes relevant to the evaluation of this resource include “Architecture” and “Land Usage (Townsite Development and City Planning).” The geographic limit is at the local level – community of Hawthorne and the current project area. The associated chronological period is the World War II era, 1940s. Alterations made to the sewage treatment facility are limited to the addition of the wooden structures to provide shelter for the pump valves and the valve pit, and appear to have been added in the same period. Integrity of location remains unchanged, though the setting and feeling have been affected by the development along the U.S. 95 By-pass, known as the Truck Route, that lies to the south of the facility. At this time, the facility is no longer in use, and as a safety precaution is enclosed by a high wire and barbed wire fence.

With regard to significance, at this time, the facility has no known association with significant events in the City of Fallon (Criterion a) or significant associations with the lives of persons of importance to the community, state or nation (Criterion b). In general, it is a very simple, mundane and non-distinctive example of World War II Era to mid 20th century institutional architecture. The method of construction is ordinary and does not possess high artistic value (Criterion c). The building is unlikely to yield additional research opportunities for furthering our understanding of historical developments or neighborhood architecture on a local, regional or national level (Criterion d). Consequently, it is the opinion of the evaluator that this single-family residence is not eligible for the National Register of Historic Places (NRHP).

SECTION NO. 11. Bibliography

National Register Staff
1997 *How to Apply the National Register Criteria for Evaluation*. National Register Bulletin. USDI National Park Service, Cultural Resources, Washington, D.C.

NEVADA STATE HISTORIC PRESERVATION OFFICE
HISTORIC RESOURCES INVENTORY FORM
CONTINUATION SHEET

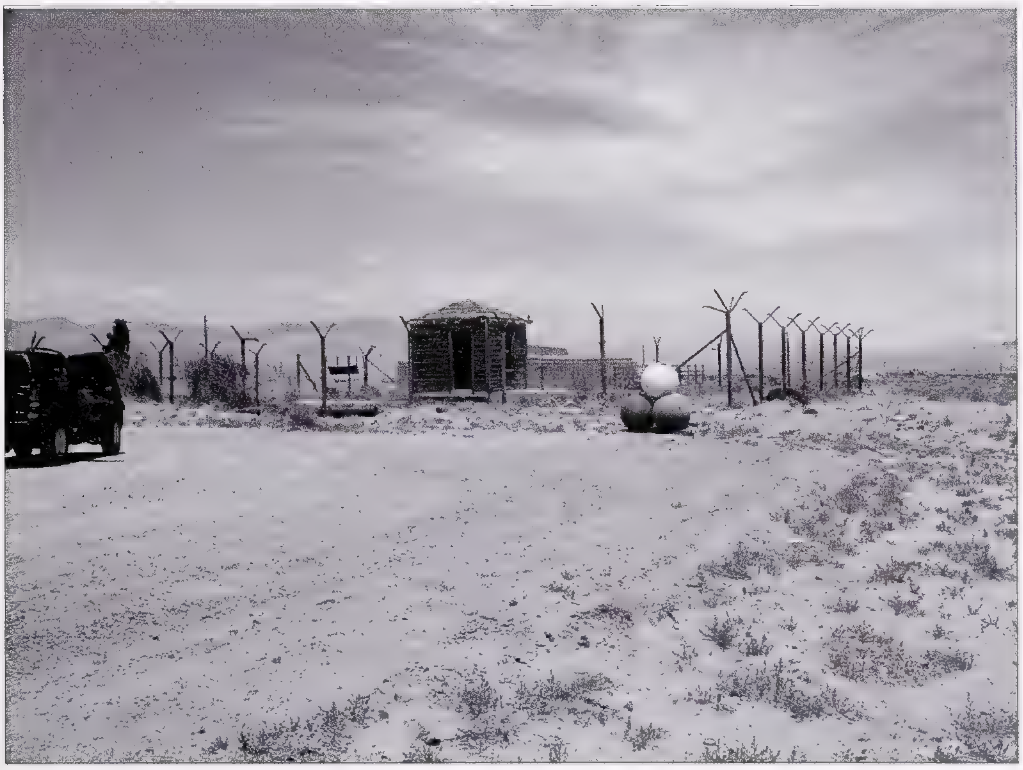
Property Name: Sewage Treatment Facility (S-4) **City, County:** Hawthorne, Mineral

SECTION NO: 13. Attached Documentation: Photograph Index **PAGE NO:** 8

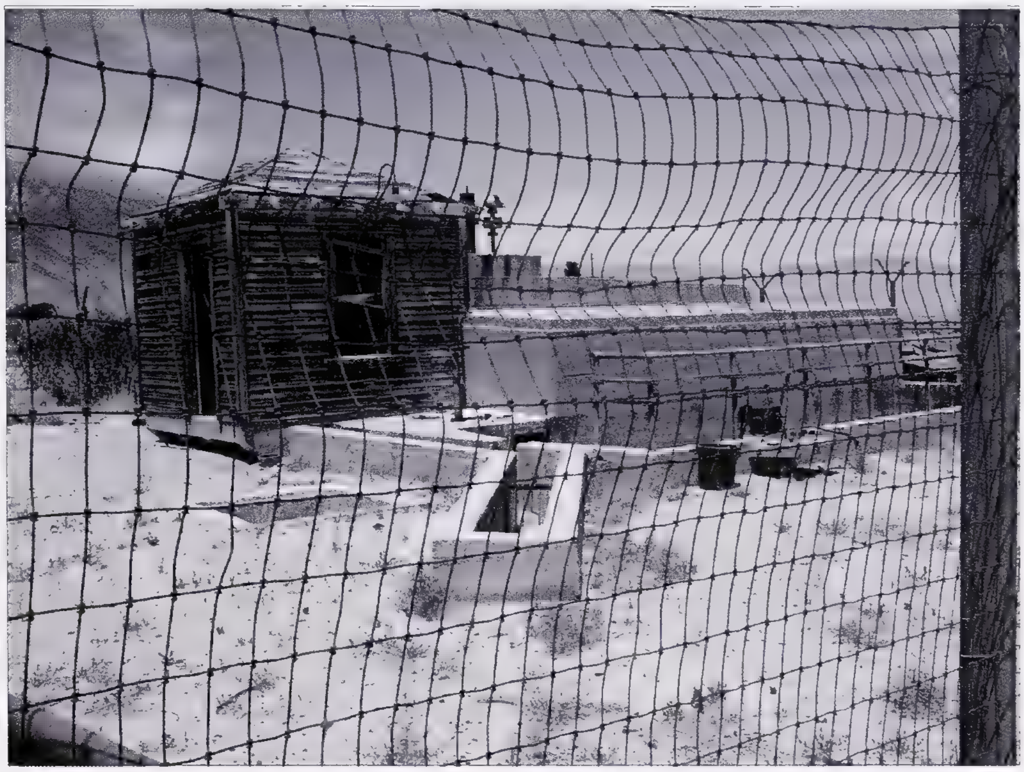
INDEX TO ATTACHED PHOTOGRAPHS

Project No: KEC-590 **Digital** **Roll #:** 7 **No. Exp:** 3

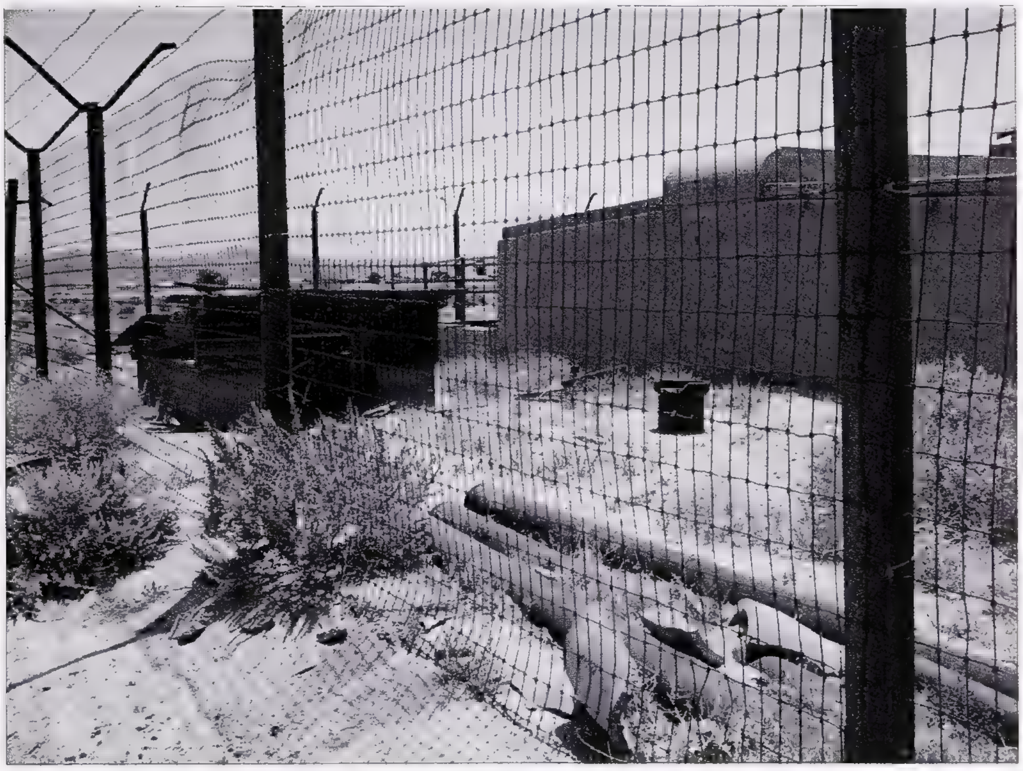
Photograph No. Proj.-Roll-Frame	Property Name Street Address City, County	Date of Photo/ Photographer	Location of CD	Direction Facing	Description
IMGP-4490	Sewage Treatment Facility Hawthorne, Mineral	06/19/2007	KEC Reno	340°	South and east elevations; Associated Buildings A and B, south and east elevations
IMGP-4491	**Sewage Treatment Facility Hawthorne, Mineral**	**06/19/2007**	**KEC Reno**	**340°**	**South and east elevations; Associated Building A, south and east elevations**
IMGP-4493	**Sewage Treatment Facility Hawthorne, Mineral**	**06/19/2007**	**KEC Reno**	**315°**	**North elevation; Associated Building B, north and west elevations**
IMGP-4494	**Sewage Treatment Facility Hawthorne, Mineral**	**06/19/2007**	**KEC Reno**	**130°**	**Low level entry-way, north and west elevations**



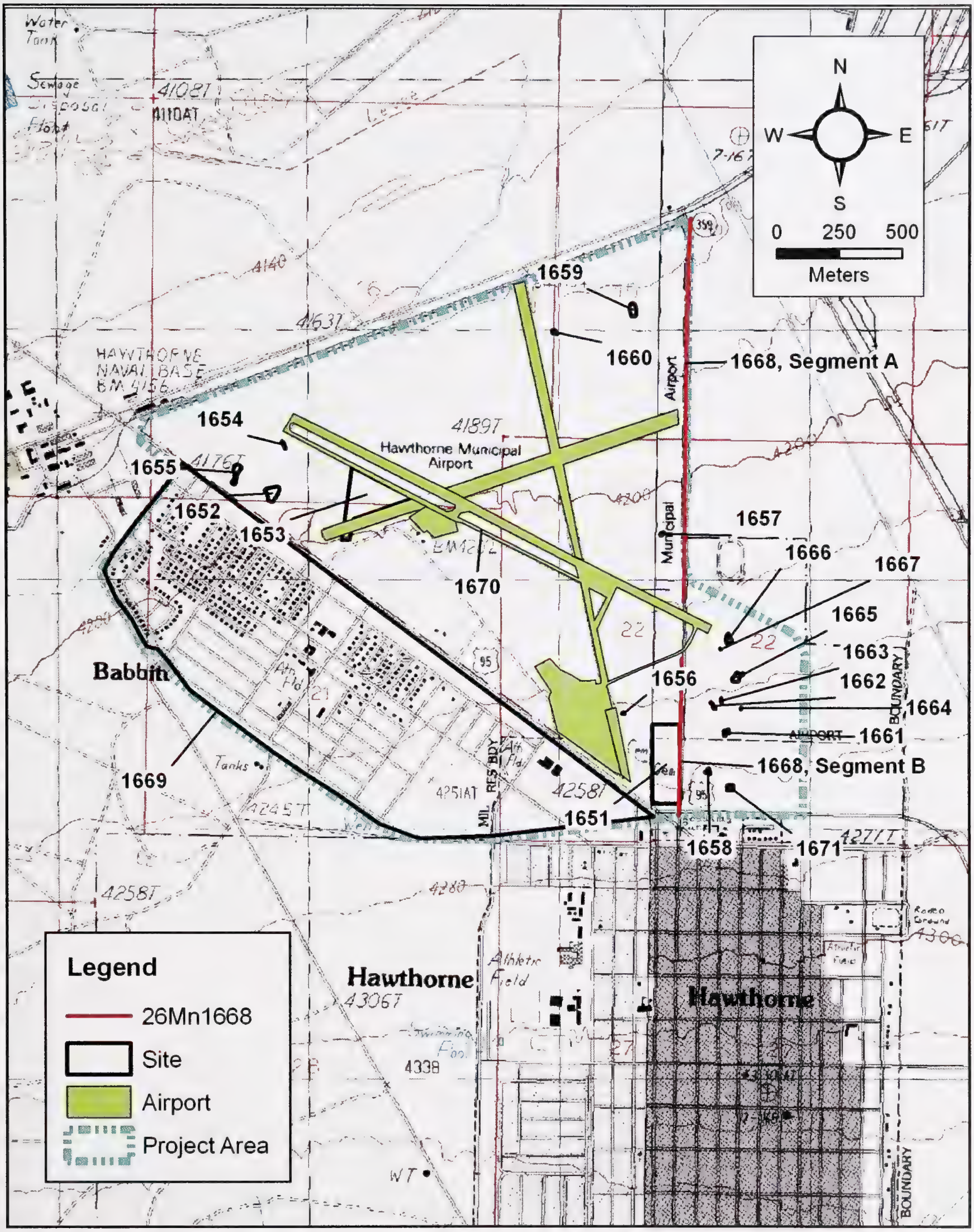
IMGP-4491



IMGP-4493

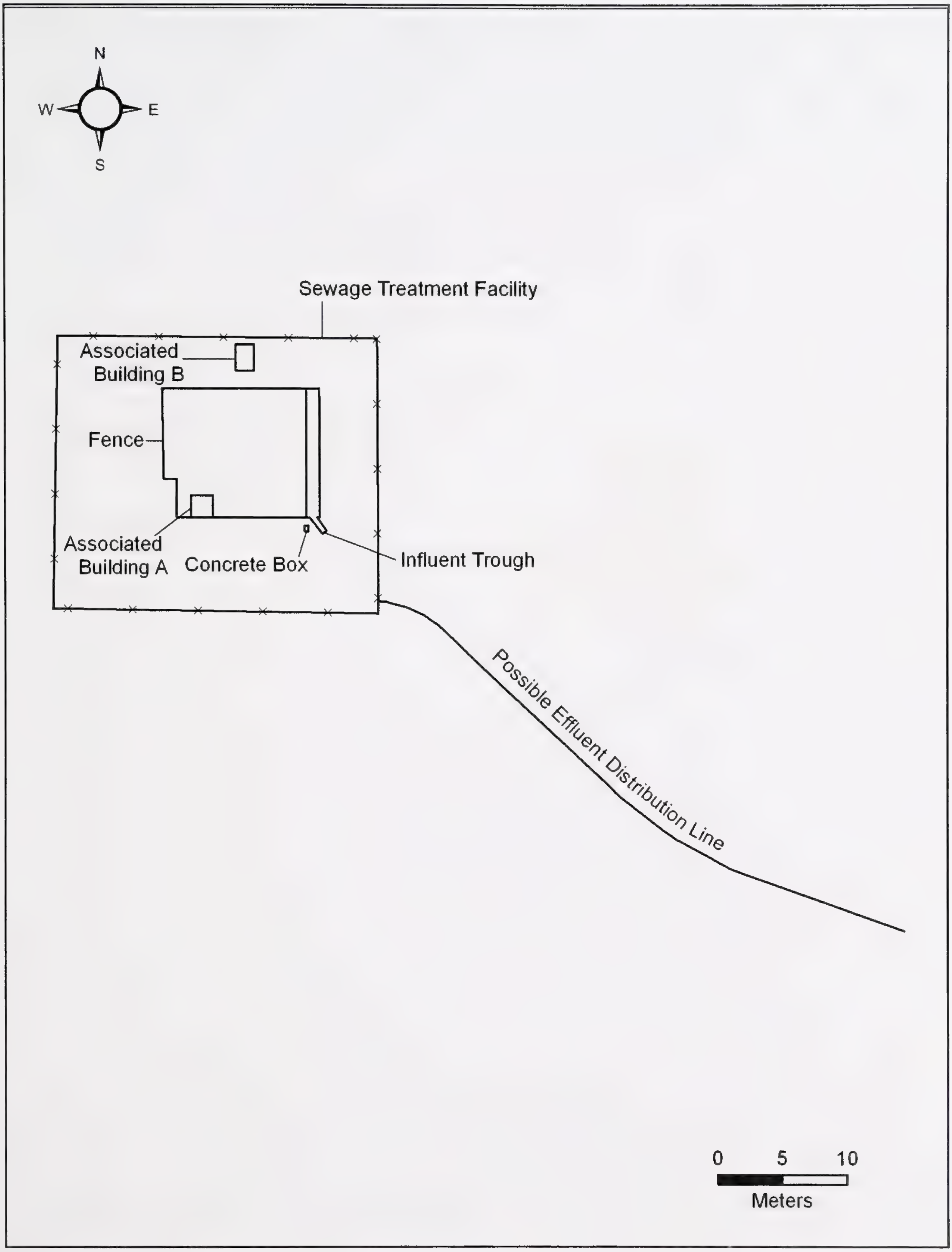


IMGP-4494



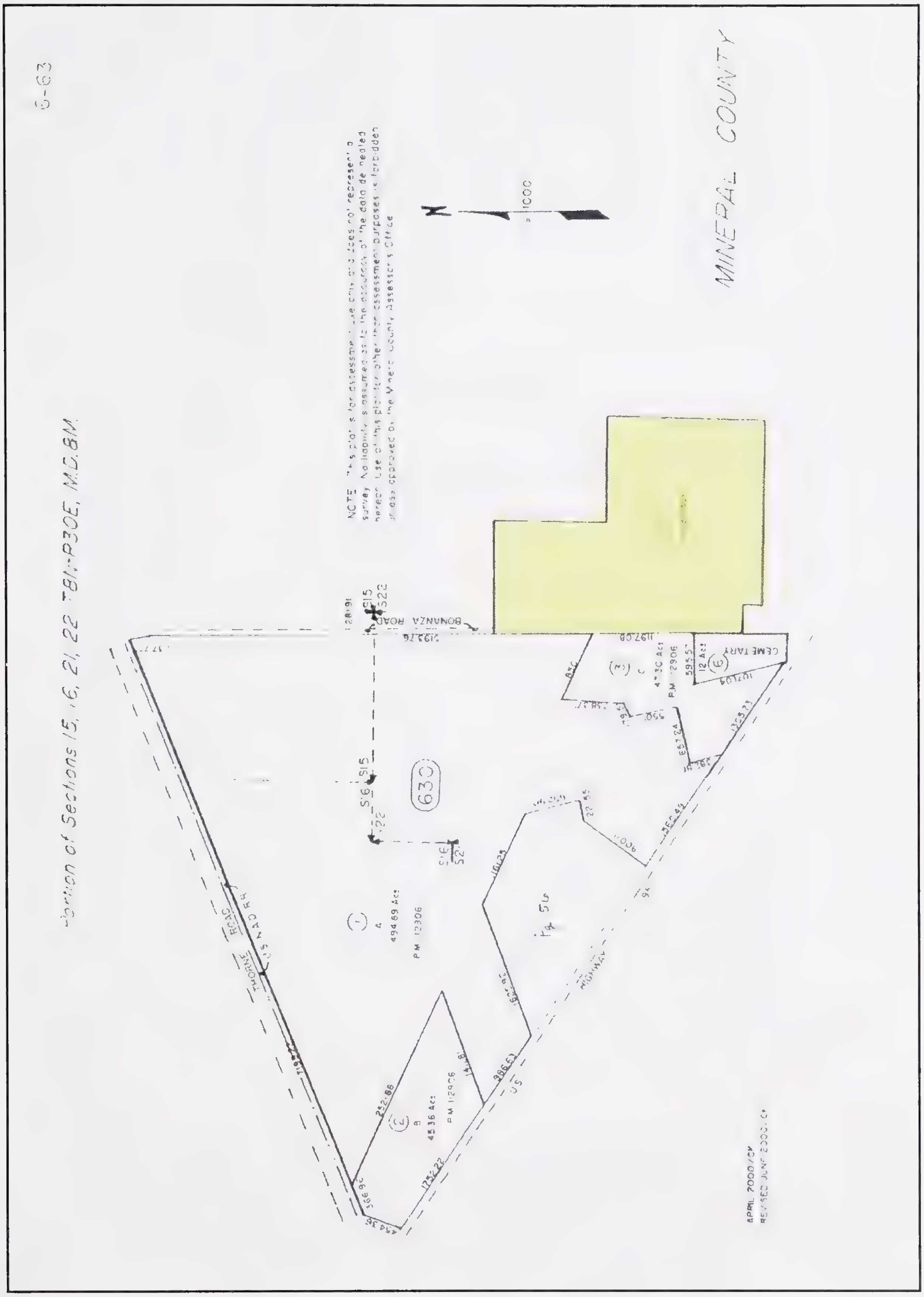
Site Location Map. Site 26Mn1671. Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., 1987. T.8N., R.30E.

Property Name: Sewage Treatment Facility (S-4) **City, County:** Hawthorne, Mineral **Page No.** 11



Site Sketch Map. Site 26Mn1671.

Property Name: Sewage Treatment Facility (S-4) **City, County:** Hawthorne, Mineral **Page No.** 12



Parcel 06-630-05. Base map courtesy of Mineral County Assessor's Office.

APPENDIX D

IMACS Site Records

IMACS SITE FORM
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

*1. **State No.** 26Mn1651
*2. **Agency No.**
3. **Temp. No.** KEC-590-1

Form approved for use by
BLM - Utah, Idaho, Wyoming, Nevada
Division of State History - Utah, Wyoming
USFS - Intermountain Region
NPS - Utah, Wyoming

Part A - Administrative Data

4. **State:** Nevada **County:** Mineral

5. **Project:** Hawthorne Survey (KEC 590)

*6. **Report No.:**

7. **Site Name / Property Name:** Hawthorne Cemetery

8. **Class:** [ ] Prehistoric [X] Historic [ ] Paleontologic [ ] Ethnographic

9. **Site Type:** Historic Hawthorne Cemetery

*10. **Elevation:** 4,264 ft.

*11. **UTM Grid** (NAD 1983) **Zone** 11 358350 **mE** 4266291 **mN** [Datum]

*12. E½ of the SE¼ of the SW¼ of Section 22, T.8N., R.30E.

*13. **Meridian:** Mt. Diablo (7)

*14. **Map Reference:** *Hawthorne East, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (P.E. 1987)

15. **Aerial Photo:** None

16. **Location and Access:** Head south on Highway 95 from Fallon, Nevada. Continue roughly 80 miles to Hawthorne, Nevada. As you enter Hawthorne, Nevada turn left (east) following Highway 95 Bypass (truck route). After traveling only 120 m turn left (north) onto Old Bonanza Road (an asphalt road heading towards the cemetery). Follow this road as it curves around to the cemetery entrance, no more than 40-50 m.

*17. **Land Owner:** County (CO)

*18. **Federal Administrative Units:** N/A

*19. **Location of Curated Materials:** N/A

20. **Site Description:** This site is the historic Hawthorne Cemetery. The cemetery is located on a flat valley floor, immediately north of Hawthorne, and south of Walker Lake. The cemetery is bordered to the east by old Bonanza Road, Highway 95 to the south, and the Hawthorne Municipal Airport to the north and west. Mature and immature trees have been planted throughout the cemetery, including pine, cottonwood, and at least three other unidentified types. The cemetery contains 300+ grave sites. Numerous graves are unmarked. The cemetery dates back to at least the 1880s, though numerous unmarked graves could date earlier, when tombstones were unavailable. Since a 2006 grave is present, the cemetery is still being used.

The cemetery can be divided into several general areas. These include the modern portion of the cemetery, the older portion, the children's burial area, and a large open area of unmarked grave sites (see attached *Site Sketch Map*). Three features also are present. Among these are two commemorative/memorial markers (Features 1 and 3), and two wooden grave markers dating to 1887 and 1892, respectively (Feature 2). The modern portion of the cemetery is well maintained, with lush green grass covering the entire area. The modern portion generally contains post-1960s burials. The older portion lacks ground cover, and has a surface of what appears to be natural sand, matching the undisturbed area around the cemetery. Graves in this area generally date prior to the 1960s, though there are several exceptions. One 2006 grave site was observed in a family plot in this portion of the cemetery. Within

List of Attachments:

	[ ] Part B	[X] Topo Map	[X] Photos	[ ] Continuation Sheets
	[X] Part C	[X] Site Sketch	[ ] Artifact/Feature Sketch	[ ] Other:
	[ ] Part E			

*Encoded Data Items

Part A - Administrative Data

State No. 26Mn1651
Agency No.
Temp. No. KEC-590-1

the older portion of the cemetery is a large open area containing unmarked graves, which probably is the oldest section of the cemetery, and the children's burial area. The open area has a stone marker with a brass plaque at its approximate center (Feature 3) reading, "Hawthorne Centennial 1881 - 1981, Memorial to the Pioneers of Mineral County..." The children's burial area is marked by a painted wooden sign that reads, "God's Little Angels". Graves in this area are variously marked by metal plaques, tombstones, or remain unmarked, but all have a single painted wooden flower at the head of the grave. At least half the tombstones at the Hawthorne Cemetery, predominantly those in the older portion of the cemetery, have been photo documented, and an alphabetical listing of names and dates of birth/death has been compiled by Gerry Perry of Henderson, Nevada. It is available on line at http://www.rootsweb.com/~cemetery/Nevada/mineral/hawthorne/pages/hawthorneae.html (2006 USGenWeb Tombstone Project, Gerry Perry). Feature 1 is as the site datum.

*21. **Site Condition:** [ ] Excellent (A) [X] Good (B) [ ] Fair (C) [ ] Poor (D) [ ] Inundated (E) [ ] Destroyed (F)

*22. **Impact Agent(s):** Other (OT) - Continuous upkeep, maintenance, and use, as well as surrounding development, has altered the historic setting and feeling of the cemetery.

*23. **National Register Status:** [ ] Significant (C) [X] Non-Significant (D) [ ] Unevaluated (Z)

Justify: This site is an historic cemetery initially dating from the 1880s, which is still being used. This site contains the graves of persons from Hawthorne, Nevada, dating from the community's beginnings to the present day, representing over 100 years of occupation. However, this cemetery is not associated with any specific local or national events or important individuals. The funerary materials present do not represent distinctive characteristics of a type, period, method, style, or master artisan. Since Hawthorne's history is well-documented, and because persons buried in the cemetery are likely represented in various iterations of the Nevada State Census, potentially providing detailed demographic data for Hawthorne and the state of Nevada, the Hawthorne Cemetery offers little additional substantive information that would provide significant research potential addressing historic research themes and associated questions developed for the region. Detailed consideration of specific criteria for evaluation and registering cemeteries outlined by the National Register Staff (1997:34-36), and Potter and Boland (1992), has led to the recommendation that the Hawthorne Cemetery is not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP).

24. **Photos:** KEC-590 Roll 1, Frame(s) 6a-16a

25. **Recorded by:** D. Risse

*26. **Survey Organization:** Kautz Environmental Consultants, Inc., Reno, Nevada (KF)

27. **Assisting Crew Members:** B. Rodela *28. **Survey Date:** 6/19/2007

*29. **Slope:** 0 (Degrees) **Aspect:** 0 (Degrees)

*30. **Distance to Permanent Water:** 75.86 x 100 Meters

*Type of Water Source [ ] Spring/Seep (A) [ ] Stream/River (B) [X] Lake (C) [ ] Other (D)
Name of Water Source: Walker Lake

*31. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)

*32. **Topographic Location -** ***See Guide for additional information***

PRIMARY LANDFORM

[ ] Mountain spine (A)
[ ] Hill (B)
[ ] Tableland/Mesa (C)
[ ] Ridge (D)
[X] Valley (E)
[ ] Plain (F)
[ ] Canyon (G)
[ ] Island (H)

[ ] Alluvial fan (A)
[ ] Alcove/Rock Shelter (B)
[ ] Arroyo (C)
[ ] Basin (D)
[ ] Cave (E)
[ ] Cliff (F)
[ ] Delta (G)
[ ] Detached Monolith (H)

SECONDARY LANDFORM

[ ] Dune (I)
[X] Floodplain (J)
[ ] Ledge (K)
[ ] Mesa/Butte (L)
[ ] Playa (M)
[ ] Port. Geo. Feature (N)
[ ] Plain (O)
[ ] Ridge/Knoll (P)

[ ] Slope (Q)
[ ] Terrace/Bench (R)
[ ] Talus Slope (S)
[ ] Island (T)
[ ] Outcrop (U)
[ ] Spring Mound/Bog (V)
[ ] Valley (W)
[ ] Cutbank (X)

[ ] Riser (Y)
[ ] Multiple S. Landforms (1)
[ ] Bar (2)
[ ] Lagoon (3)
[ ] Ephemeral Wash (4)
[ ] Kipuka (5)
[ ] Saddle/Pass (6)
[ ] Graben (7)

Describe: The cemetery is located on the flat valley floor, immediately north of Hawthorne, and south of Walker Lake.

*33. **On-site Depositional Context**

[ ] Fan (A)
[ ] Talus (B)

[ ] Outcrop (Q)
[ ] Extinct Lake (F)

[ ] Moraine (J)
[X] Flood Plain (K)

[ ] Desert Pavement (P)
[ ] Stream Bed (R)

Part A - Administrative Data

State No. 26Mn1651
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[ ] Dune (C)
[ ] Stream Terrace (D)
[ ] Playa (E)
[ ] Extant Lake (G)
[ ] Alluvial Plain (H)
[ ] Colluvium (I)
[ ] Marsh (L)
[ ] Landslide/Slump (M)
[ ] Delta (N)
[ ] Aeolian (S)
[ ] None (T)
[ ] Residual (U)

Describe: The soil is a coarse sand that appears natural, though some fill could have been brought in to cover the graves. According to Blake (1991:332-333), this site appears to be located within the *Inmo-Inmo Occasionally Flooded* soil association. This soil type is located on alluvial fans at elevations of 4,100 to 5,200 ft. and is comprised of very gravelly loamy sand on 2-8 percent slopes.

***34. Vegetation**

***a. Life Zone** [ ] Arctic-Alpine (A) [ ] Hudsonian (B) [ ] Canadian (C) [ ] Transitional (D) [X] Upper Sonoran (E) [ ] Lower Sonoran (F)

***b. Community:** **Primary On-Site** (U) **Secondary On-Site** (U) **Surrounding Site** (U)

Aspen (A)
Spruce-Fir (B)
Douglas Fir (C)
Alpine Tundra (D)
Ponderosa Pine (E)
Lodgepole Pine (F)
Other/Mixed Conifer (G)
Pinyon-Juniper Woodland (H)
Wet Meadow (I)
Dry Meadow (J)
Oak-Maple Shrub (K)
Riparian (L)
Grassland/Steppe (M)
Desert Lake Shore (N)
Shadscale Community (O)
Tall Sagebrush (P)
Low Sagebrush (Q)
Barren (R)
Marsh/Swamp (S)
Lake/Reservoir (T)
Agriculture/Developed (U)
Blackbrush (V)
Creosote Bush (Y)
Juniper-Sage (2)

Describe: Mature and immature trees have been planted throughout the cemetery, including pine, cottonwood, and at least three other unidentified types. The modern portion of the cemetery is well maintained, with lush green grass covering the entire area. The older portion lacks ground cover and has a surface of what appears to be natural sand, matching the undisturbed area around the cemetery.

***35. Miscellaneous Text:**

References:

Blake, E. W. 1991. *Soil Survey of Mineral County Area, Nevada.* USDA Soil Conservation Service, Washington, D.C.

National Register Staff1997*How to Apply the National Register Criteria for Evaluation.* National Register Bulletin. U. S. D. I. National Park Service, Cultural Resources, Washington, D.C. pp. 34-36.

Potter, E. W. and B.M.Boland1992*Guidelines for Evaluating and Registering Cemeteries and Burial Places.* National Register Bulletin 41, U. S. Department of the Interior, National Park Service, Interagency Resources Division, National Register of Historic Places, Washington, D. C.

USGenWeb Tombstone Project, Gerry Perry 2006. *Hawthorne Cemetery; Hawthorne, Mineral County, Nevada.* Internet document, http://www.rootsweb.com/~cemetery/Nevada/mineral/hawthorne/pages/hawthorneae.html, accessed June 20, 2007.

36. Comments/Continuations: None

Part C - Historic Sites

State No. 26Mn1651
Agency No.
Temp. No. KEC-590-1

1. **Site Type:** Hawthorne Cemetery

*2. **Historic Theme(s):** Funerary (FU)/Community Development (CD)

		CULTURAL AFFILIATION	DATING METHOD
*3.	**Culture:**	Euro-American (EA)	Historical Record (I) and Tombstones (G)

Describe: The majority of names on tombstones are consistent with Euro-American names, though other affiliations may also be present.

*4. **Oldest Date:** c. 1880 **Recent Date:** present

How Determined? A marker at the cemetery (Feature 3) honors the first pioneers of Hawthorne, which no longer have tombstones identifying the age of these burials. The unmarked pioneer burials presumably date as early as the first settlement of Hawthorne, during the 1880s after the completion, in 1881, of the Carson and Colorado Railroad to Hawthorne (Johnson 1975:69-70; Myrick 1962:172). The earliest marked grave dates to 1884. Modern tombstones dating to recent years are also present.

5. **Site Dimensions:** 319 m (N/S) x 111 m (E/W) ***Area:** 34,662 sq. m

*6. **Surface Collection Method**
[X] None (A)
[ ] Grab Sample (B)
[ ] Designed Sample (C)
[ ] Complete Collection (D)

Sampling Method: N/A

*7. **Estimated Depth of Cultural Fill**
[ ] Surface (A)
[ ] 0 - 20 cm (B)
[ ] 20 - 100 cm (C)
[X] 100 cm + (D)
[ ] Fill noted but unknown (E)
[ ] Depth Suspected, but not tested (F)

How Estimated: *(If tested, show location on site map)* Presence of burials.

*8. **Excavation Status** [ ] Excavated (A) [ ] Tested (B) [X] Unexcavated (C)

Testing Method: N/A

*9. **Summary of Artifacts and Debris** *(Refer to Guide for additional categories)*

[ ] Glass (GL)
[ ] Metal (ME)
[ ] Nails (NC, NW)
[ ] Stove Parts (SP)
[ ] Insulators (IN)
[ ] Bone (BO)
[ ] Ceramics (CS)
[ ] Fabric (FA)
[ ] Mining/Milling Machinery(MN)
[ ] Building Hardware (BH)
[ ] Leather (LE)
[ ] Wire (WI)
[ ] Tin Cans
[ ] Mining Tools (MT)
[ ] Tar Paper (TP)
[ ] Ammunition (AM)
[ ] Wood (WD)
[ ] Rubber (RB)
[ ] Shoes (SO)
[ ] Tobacco Tins (TO)
[ ] Domestic Items (DI)
[ ] Kitchen Utensils (KU)
[ ] Car/Car Parts (CR)
[ ] Brick (BR)
[ ] Clock Parts (CT)

Describe: No artifacts observed.

10. **Ceramic Artifacts:**

#	PASTE	GLAZE/SLIP	DECORATION	PATTERN	VESSEL FORM(S)

a. **Estimated Number of Ceramic Trademarks:** None.

Describe: None observed.

11. **Glass:**

#	MANUFACTURE	COLOR	FUNCTION	TRADEMARKS	DECORATION

Describe: [*Note:* The term mold blown is used to indicate that the bottle glass was blown into a mold for shape by either mouth or machine. ABM refers to automatic bottle machine, which is used here to represent both ABM and Semi-ABM if there is no available information to indicate that the bottle was made by a semi-automatic bottle machine.] None observed.

12. **Maximum Density - #/sq. m (glass and ceramics):** N/A

Part C - Historic Sites

State No. 26Mn1651
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13. **Tin Cans:** [*Note:* The measurements follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.]

#	TYPE	OPENING	SIZE	MODIFIED	LABEL/MARK	FUNCTION

Describe: None observed.

*14. **Landscape and Constructed Features (locate on site map)** - *(See Guide for additional categories)*

[ ] Trail/Road (TR)
[ ] Tailings (MT, ML)
[ ] Rock Alignment (RA)
[ ] Cairn (AI)
[ ] Dump (DU)
[ ] Depression (DE)
[X] Cemetery/Burial (CB)
[ ] Prospect Hole (PH)
[ ] Dam, Earthen (DA)
[ ] Ditch (DI)
[ ] Inscriptions (IN)
[ ] Hearth/Campfire (HE)
[ ] Quarry (QU)
[x] Other (OT)

Describe: Approximately 300+ burials are present at this cemetery, with an estimated 40-45% being historic. For this recordation only three features are delineated, though each burial could be classified as a separate feature.

Feature 1 is a built stone marker, 7 ft. high, surrounded by what appears to be 12 World War II era missiles sticking vertically out of the ground. The stone is coursed into a square shaped monument that has been painted white. A cuprous plaque on the side of the monument reads "THIS MEMORIAL DEDICATED BY THE DISABLED AMERICAN VETERANS AND LADIES AUXILIARY VETERANS OF FOREIGN WARS AND LADIES AUXILIARY LEGION AND LADIES AUXILIARY AND THE CITIZENS OF MINERAL COUNTY, NEVADA TO PERPETUATE THE MEMORY OF OUR VALIANT DEFENDERS OF FREEDOM WHO MADE THE SUPREME SACRAFICE IN ALL WARS - ERECTED MAY 30, 1950". This memorial marker is located at the south end of the cemetery, just outside the cemetery boundary fence.

Feature 2 is two of the three wooden grave markers still present at the cemetery. The third wooden tombstone is located roughly 30 m north from Feature 2, and is completely illegible. The two side-by-side wooden grave markers mark the graves of what appear to be a husband and wife. The graves are oriented east/west, with the head at the western end. The marker to the south reads "IN MEMORY/OF/JANE/HOLMAN/NATIVE OF/CORNWALL ENGLAND/ BORN JUNE...1816/DIED JULY 24 1887/-AGED-/71 YRS. 1 MO. 15 DS." The marker to the north reads "IN MEMORY/OF/THOMAS HOLMAN/NATIVE OF/CORNWALL ENGLAND/BORN DEC. 26 1816/DIED NOVR. 14 1892/-AGED-/75 YRS. 10 MO. 19 DS." The epitaph on both grave maker follows the same design, and appears to have been burned into the wood. A square concrete border has been poured around each grave maker, and a metal band has been attached to the top, following the U-shape, of each maker. These alterations have presumably been made to help preserve them. A modern granite slab on top of a concrete base has been placed in front of these wooden tombstones. It reads, "IN MEMORY OF/HOLMAN/JANE 1816-1887/THOMAS 1816-1892/NATIVES OF CORNWALL ENGLAND." Two modern grave markers of other members of the Holman family are located immediately north (died 1991 and 2006 respectively).

Feature 3 is a memorial marker. It is located at the center of an open area within the cemetery, presumably where early unmarked graves are located. It is a large boulder, roughly 3 x 3 x 3 ft., with a brass plaque attached to one face reading, "HAWTHORNE CENTENNIAL 1881 - 1981 MEMORIAL TO THE PIONEERS OF MINERAL COUNTY DEDICATED BY ...INTERNATIONAL OF HAWTHORNE AND THE HAWTHORNE CENTENNIAL COMMITTEE."

*15. **Buildings and Structures (locate on site map):**

#	MATERIAL	TYPE

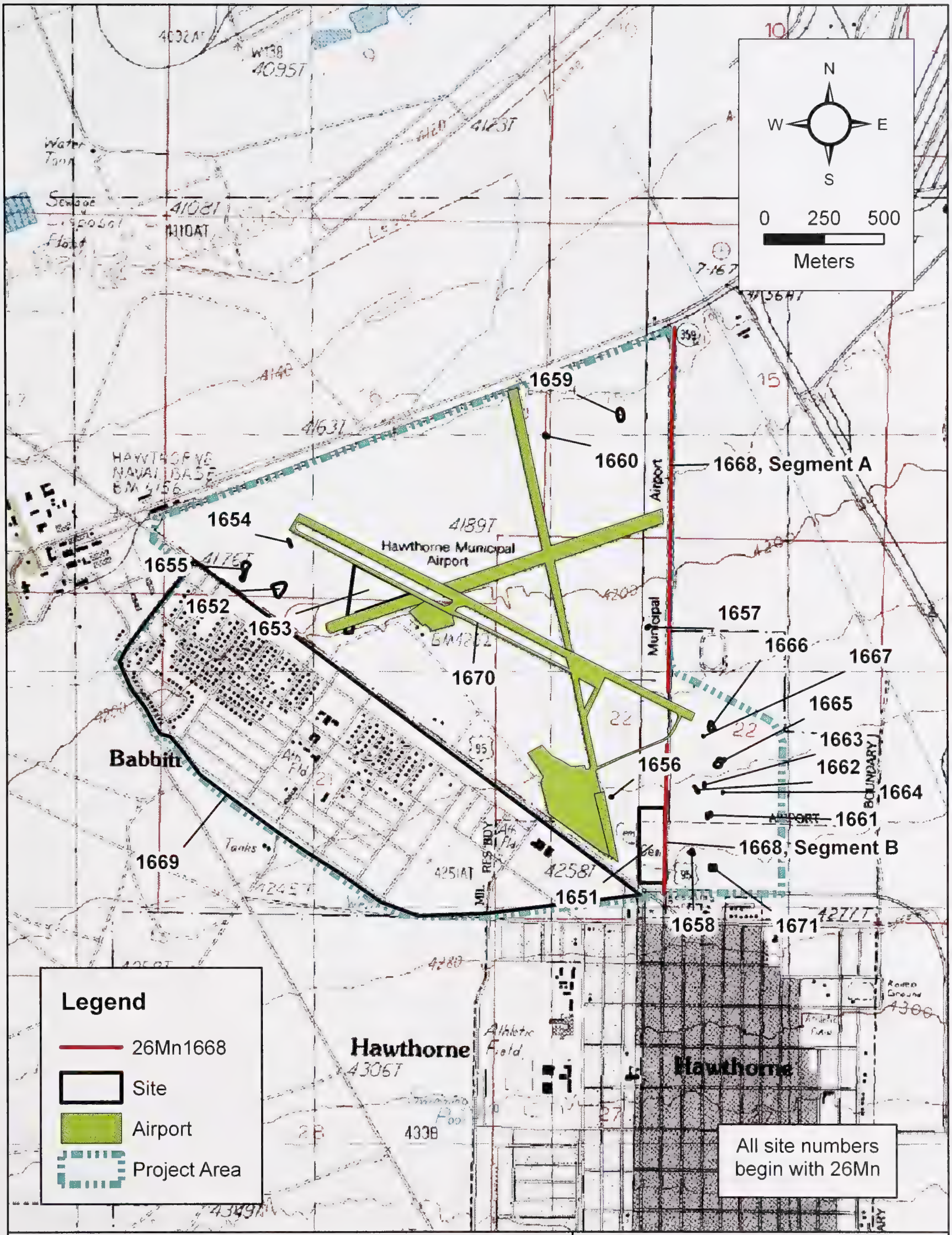
Describe: None observed.

16. **Comments/Continuations** - *(Please make note of any Historic Record searches performed (for example - County Records, General Land Office, Historical Society, Land Management Agency Records, Oral Histories/Interviews)*

References:

Johnson, E.C. 1975. *Walker River Paiutes A Tribal History*. Walker River Paiute Tribe, Schurz, Nevada.

Myrick, D. F. 1962. *Railroads of Nevada and Eastern California, Vol. 1 - The Northern Roads.* Howell-North Books, Berkeley, California.



Site Location Map: Site No. 26Mn1651 (KEC-590-1)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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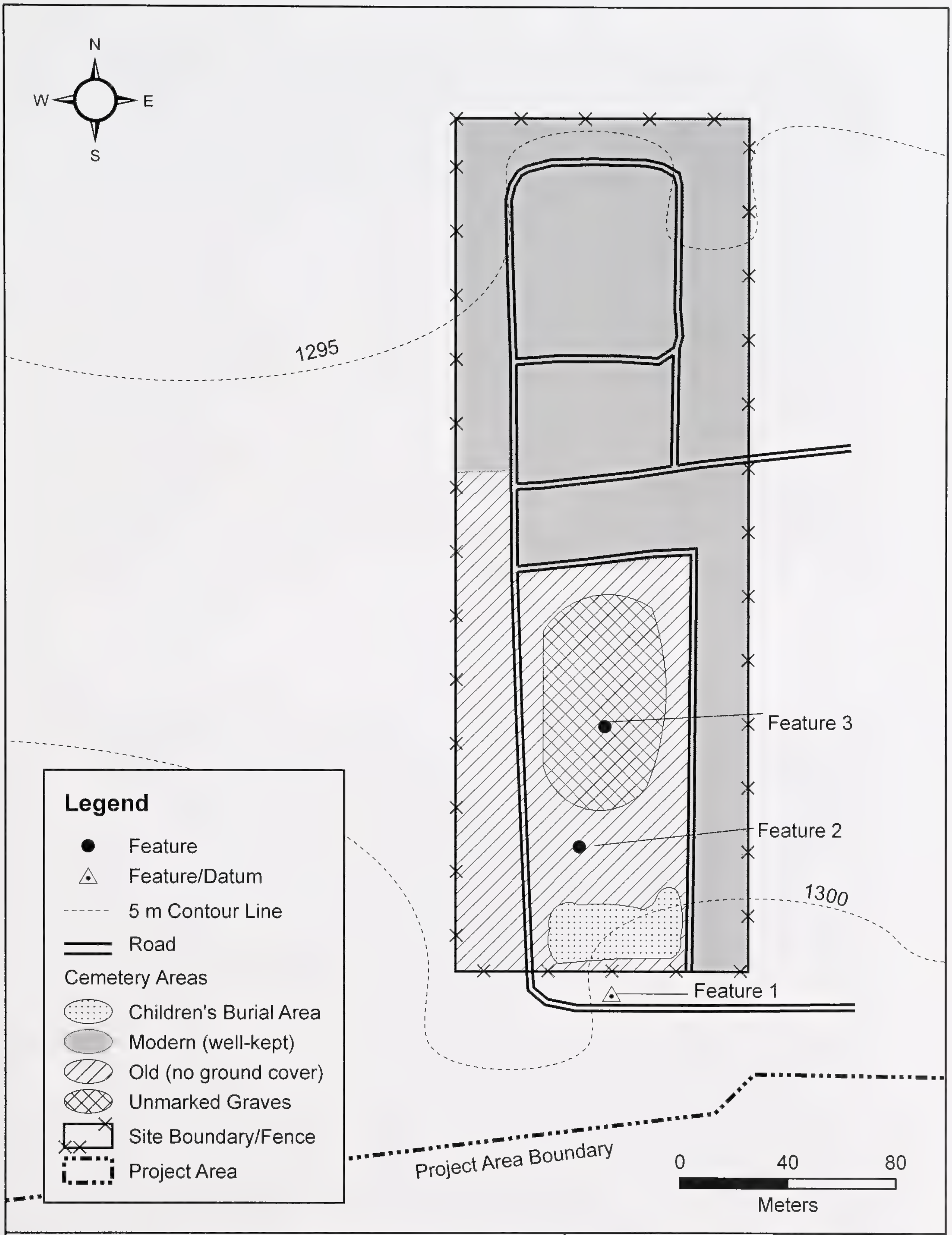

Site Sketch Map: Site No.26Mn1651 (KEC-590-01)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-20-07

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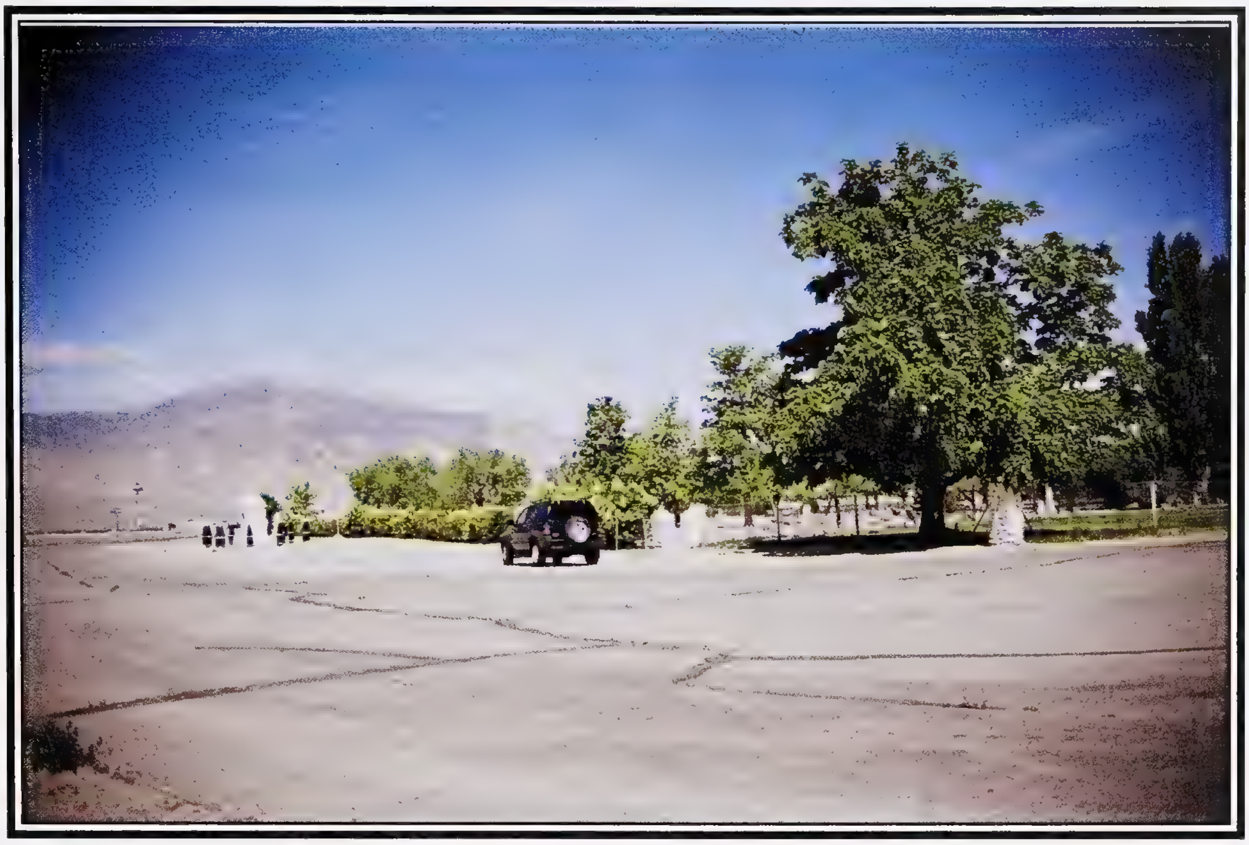
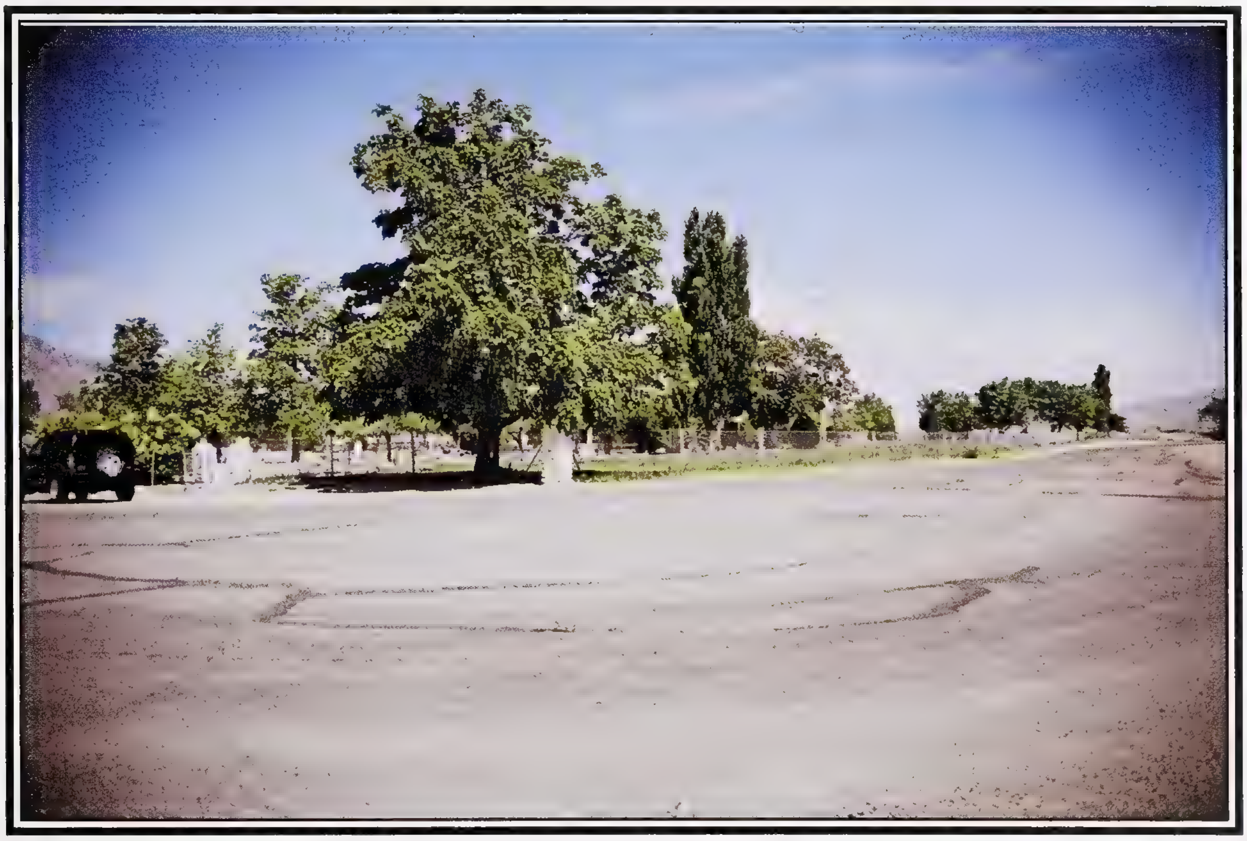
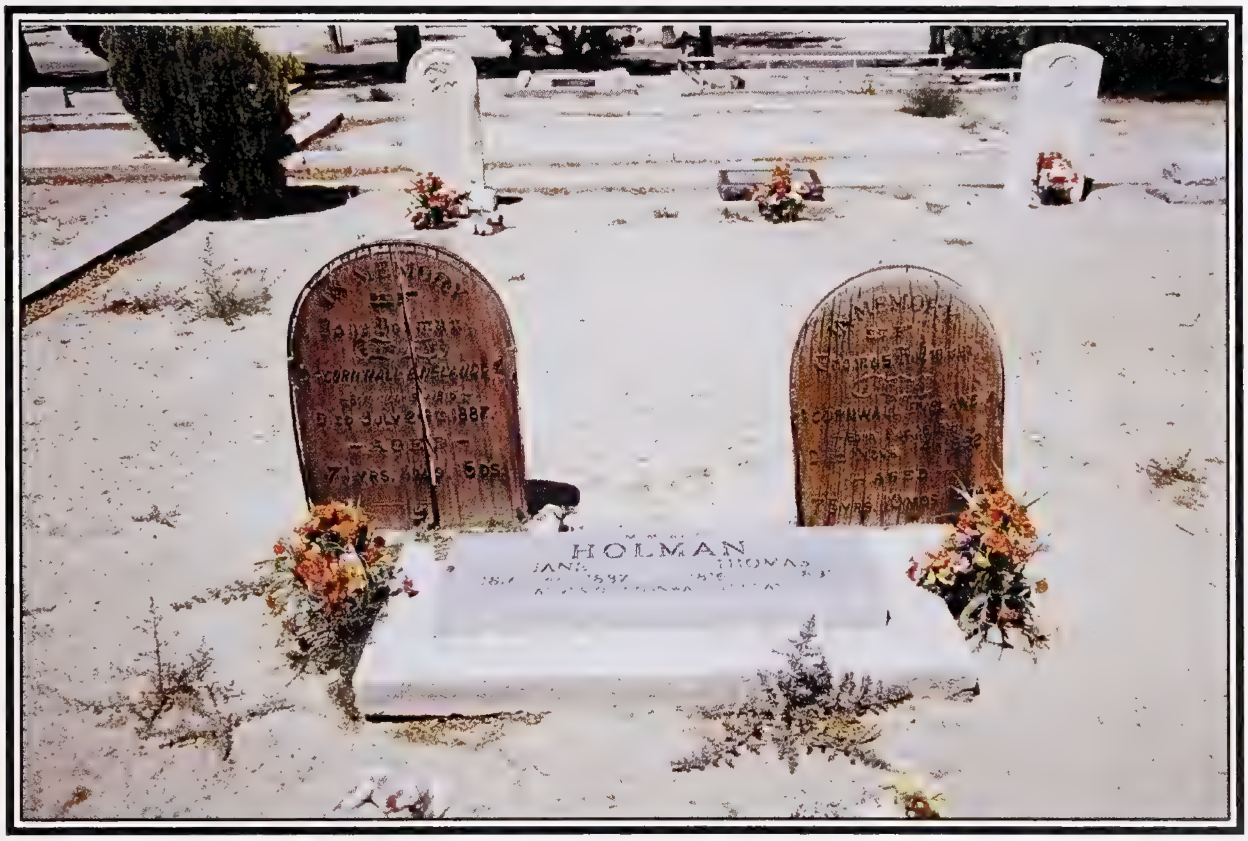


Photograph 1 (IMACS) Site 26Mn1651 (KEC-590-1). Site overview (320°). Kautz Environmental Consultants, Inc., 2007.

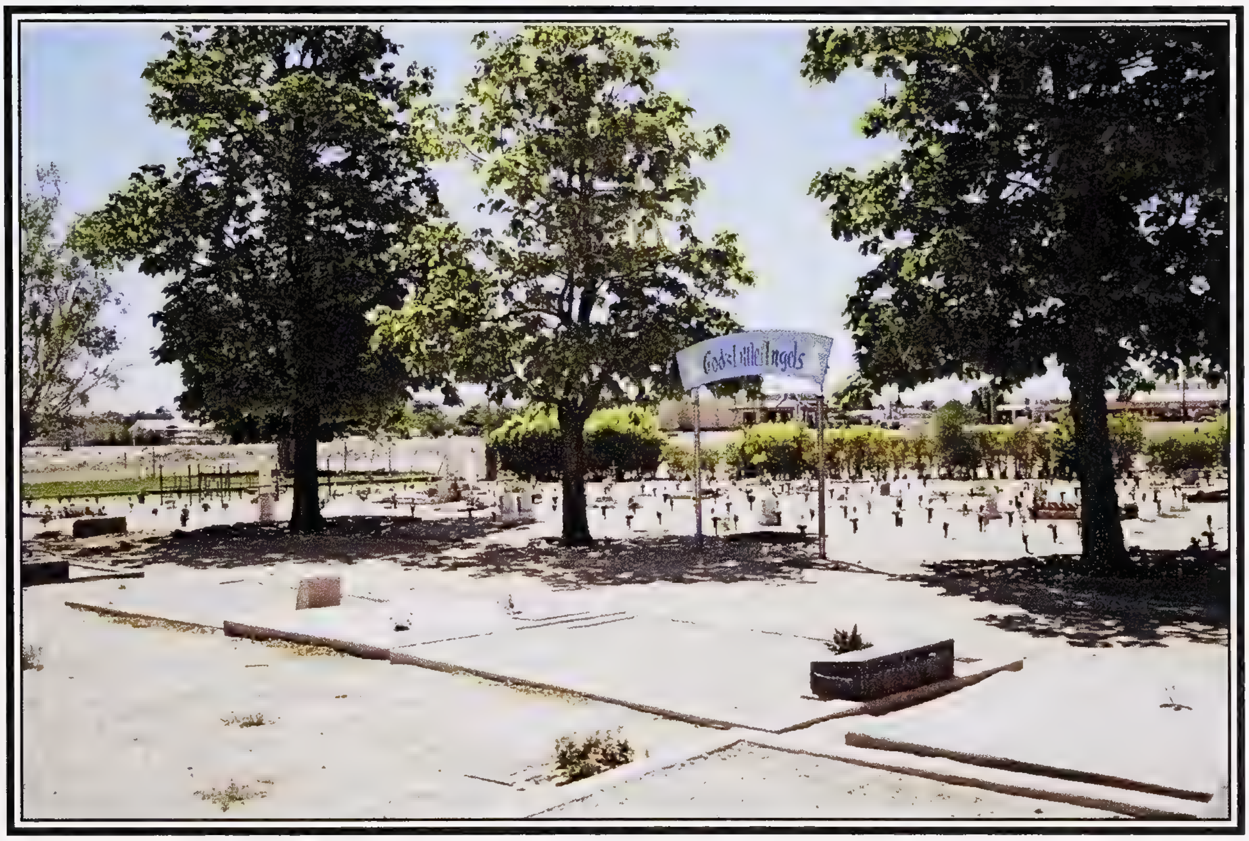


Photograph 2 (IMACS) Site 26Mn1651 (KEC-590-1). Site overview (320°). Kautz Environmental Consultants, Inc., 2007.

Photograph 3 (IMACS) Site 26Mn1651 (KEC-590-1). Older burial grounds (315°). Kautz Environmental Consultants, Inc., 2007.



Photograph 4 (IMACS) Site 26Mn1651 (KEC-590-1). Feature 2, Pioneers' wooden grave markers (270°). Kautz Environmental Consultants, Inc., 2007.



Photograph 5 (IMACS) Site 26Mn1651 (KEC-590-1). Children's burial ground (140°). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible_X_ Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

*1. **State Site No.:** 26Mn1652 *2. **Agency Site No.:** 3. **Temp Site No.:** KEC-590-3
4. **Project Name:** Hawthorne Survey (KEC 590) 5. **NSM Report Number:**
*6. **Agency Report Number:** **County:** Mineral
7. **Site/Property Name:** None
8. **Site Class:** Prehistoric __ Historic _X_ **Historic Theme/Affiliation:** None; European/American (EA)
Site Area: 59 m N/S x 56 m E/W (Area: 2,260 sq. m) **Age:** 1930s-c. 1958
Dating Method: Cross-Dating/Diag. Artifacts (F) **Depth of Cultural Fill:** Surface (A)

9. **Site Description:** This site is a medium-sized, diffuse, late historic/early modern refuse scatter, located on a flat valley floor, immediately north of Hawthorne, and south of Walker Lake. The site may represent repeated dumping episodes dating as early as the 1930s. A complete inventory of the historic-aged refuse was done. Modern refuse includes tab-seamed beverage cans, aluminum top beverage cans, and all aluminum beverage cans. A total of 12 historic items, all tin cans (flat-top beverage, cone-top beverage, sanitary, vent hole, oil), were noted and recorded. The maximum density of historic material is 2 artifacts/m^2. This site is located immediately east of the town of Babbitt, and within 100 meters of U. S. Highway 95, both of which may have been contributing factors. This site has been impacted by modern dumping. The site datum is located at the approximate site center. A trowel scrape excavated here revealed silty gravelly sands. There is no indication that this site contains subsurface cultural materials.

National Register Significance: This site appears to represent multiple episodes of dumping, and contains both late historic and early modern debris, with a suggested date range of c. the 1930s to c. 1958. While this site is probably related to the towns of Babbitt and Hawthorne, and/or possibly U. S. Highway 95, all of which occur less than one mile distant, no specific historic event(s) can be assigned to this site. This site cannot be definitively associated with the life of an important historic figure(s), nor does it contain outstanding engineering features. This site is not identified on historic maps or indices of the area. Based on its lack of contextual information, its surficial nature, lack of associated features, and its relatively limited numbers and diversity of artifacts, this site does not have the potential to address historic research themes or associated questions developed for the region. Therefore, this site is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

*10. **Elevation:** 4,113 ft. *11. **UTM Grid Zone (NAD 1983):** Zone 11 356775 **mE** 4267538 **mN** [Datum]
*12. **Township/Range** (To quarter section only): SW¼ of Section 16, T.8N., R.30E.
*13. **Meridian:** Mt. Diablo (7)
*14. **Map Reference:** *Hawthorne West, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
*15. **Land Owner:** Municipal *16. **Federal Administrative Unit:** N/A
*17. **Distance to Permanent Water:** 60 x 100 m NW, Walker Lake **Type:** (A) spring __ (B) stream/river__ (C) lake _X_ (D) other__
*18. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
*19. **Topographic Location/Primary Landform:** Valley (E) *20. **Depositional Context:** Flood Plain (K)
*21. **Vegetation Community** (primary only): Shadscale Community (O)
22. **Photographs** (Roll & Frame Nos.): KEC-590 Roll 3, Frame 2
23. **Recorded by:** R. Breitling **Date:** June 20, 2007
*24. **Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Artifact Summary: Note: The measurements of the tin cans follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2-6/16 in. x 3-5/16 in. x 1-4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.

Count/density	Material	Artifact/code	Comments
6	Metal (ME)	Tin Can (TZ)	Six flat-top beverage, 2 x church key opened, 211 x 412, 2x; lithographic label reads "ACME / BEER." The Acme Beer brand name was used from c.1906-1968, then from 1975-1978, resurrected again 1987-c.1989 (Brewery Gems.com 2004-2007). Flat top beverage cans date from 1935 to the 1970s (Martells 1976:6-10, 32-33; Rock 1989:72), and cans with this general label description date 1940, 1946, and 1957 (Martells 1976:49, Figures 16-18. 22).
1	Metal (ME)	Tin Can (TZ)	One cone-top beverage, crown cap, 213 x 408, cone 012, seam has seven notches (tabs), beverages. Cone top beverage cans date from 1935 to 1957, though seams with tab-like notches appeared in c. 1958 (Martells 1976:6-9, 44; Rock 1989:73).
2	Metal (ME)	Sanitary Can (TC)	Two sanitary, unknown opening, 308 x 406, food. Sanitary cans have a date range of c. 1904 to the present (Rock 1989:52, 61-62).

Count/density	Material	Artifact/code	Comments
1	Metal (ME)	Tin Can	Flat-top beverage, 2x knife punch opening, 211 x 412, soda pop; lithographic label reads "SHASTA." Soda pop was first successfully canned in all steel cans in 1953 (Rock 1989:146-147). *Shasta* claims to have been the first to can their beverages in the 1950s (Shasta Beverages 2002).
1	Metal (ME)	Tin Can - Vent Hole (TH)	Vent hole, 2x ice pick punch, 300 x (400), evaporated milk. Identified as a No. 1B can, it dates from c. 1931 to c. 1985 (Bitting 1937:751; Bowyer 2002:113-114; Edwards et al. 1990:100-101), or falls under Type 11, 1917-1929; Type 12m 181701929; Type 19, 1930-1975; or Type 21, 1950-c. 1985 (Simonis 1997).
1	Metal (ME)	Utility Can (CU)	Oil, 2x knife punch, 400 x 508, embossed "MOTOR / OIL / S.A.E." Quart-sized motor oil cans were introduced in 1933/1935. All steel cans were used until c. 1958 (Rock 1989:134).

Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)

References:

Brewery Gems. 2004-2007. Illustrated History of the Acme Brewing Company. Electronic document, http://www.brewerygems.com/acme.htm, accessed June 29, 2007.

Bitting, A. W. 1937. *Appertizing or The Art of Canning; Its History and Development.* The Trade Pressroom, San Francisco, California.

Bowyer, G. C. 2002. Twentieth Century Material Culture Variability: Valve Marks, Milk Cans, and Tobacco Tins. In *Contributions to the Archaeology of Oregon*, edited by L. A. Speulda and G. C. Bowyer, pp. 109-119. Occasional Papers No. 7. Association of Oregon Archaeologists.

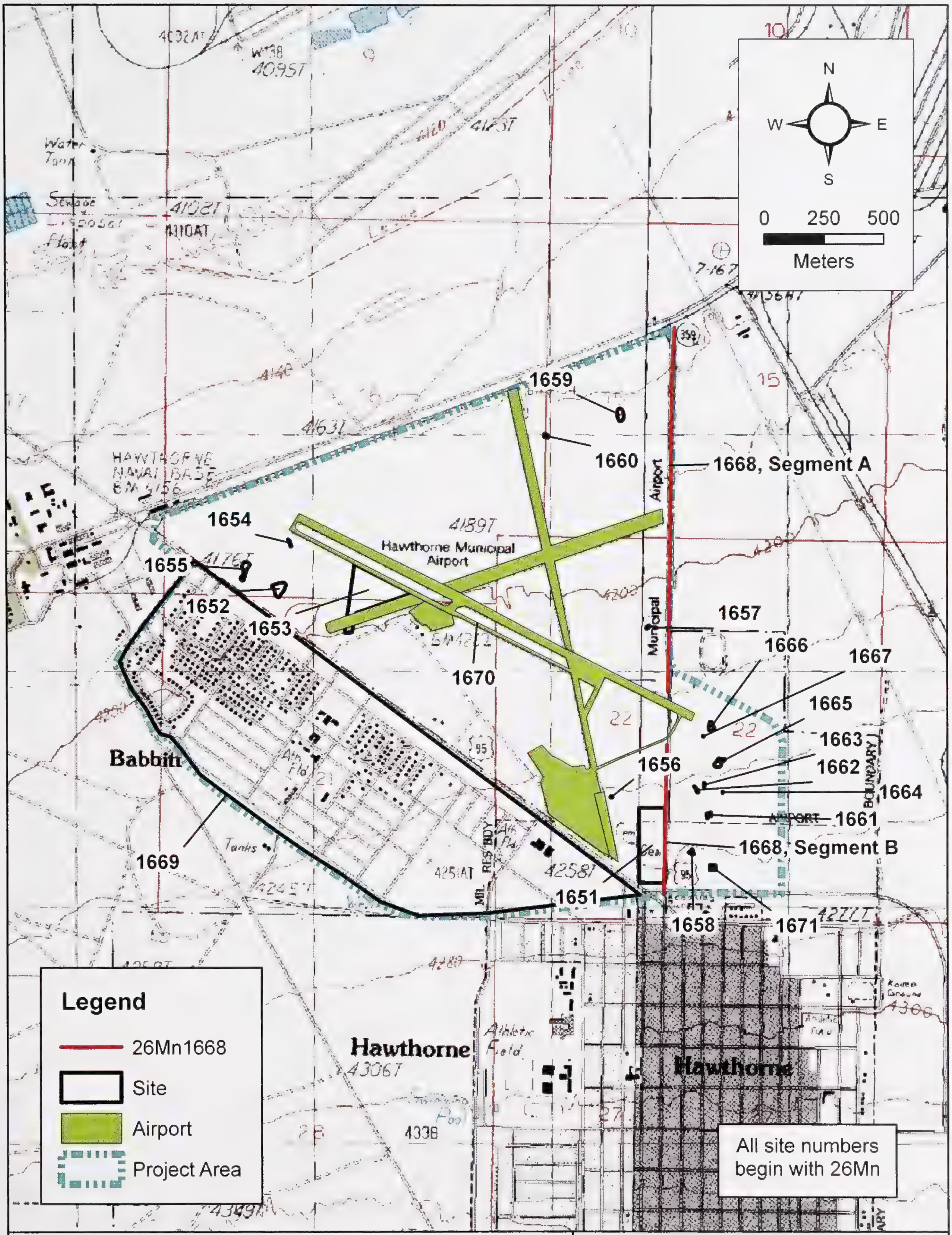
Edwards, S. R., M. E. Kimball, and M. E. Roberson. 1990. *The Archaeological Testing and Evaluation of the "Fairview Mining Complex" Site CRNV61-360/26NY5989 for Round Mountain Gold Corporation, Round Mountain, Nye County, Nevada.* Division of Anthropological Studies, Environmental Research Center, Barrick Museum of Natural History, University of Nevada-Las Vegas. DAS Report 5-126-1b. On file, USDI Bureau of Land Management, Tonopah Field Office, Tonopah, Nevada, Report No. CRR6-1301-1.

Martells, J. 1976. *The Beer Can Collector's Bible.* Ballantine Books, New York.

Rock, J. T. 1989. *Tin Canisters: Their Identification.* Ms. on file, USDA Forest Service, Klamath National Forest, Yreka, California.

Shasta Beverages. 2002. Museum: 1950s - Shasta is the Industry's Innovation Leader! Electronic document, http://www.shastapop.com/museum.html, accessed July 11, 2007.

Simonis, D. 1997. *Simonis Can Guide.* USDI Bureau of Land Management, Kingman Field Office, Kingman, Arizona.



Site Location Map: Site No. 26Mn1652 (KEC-590-3)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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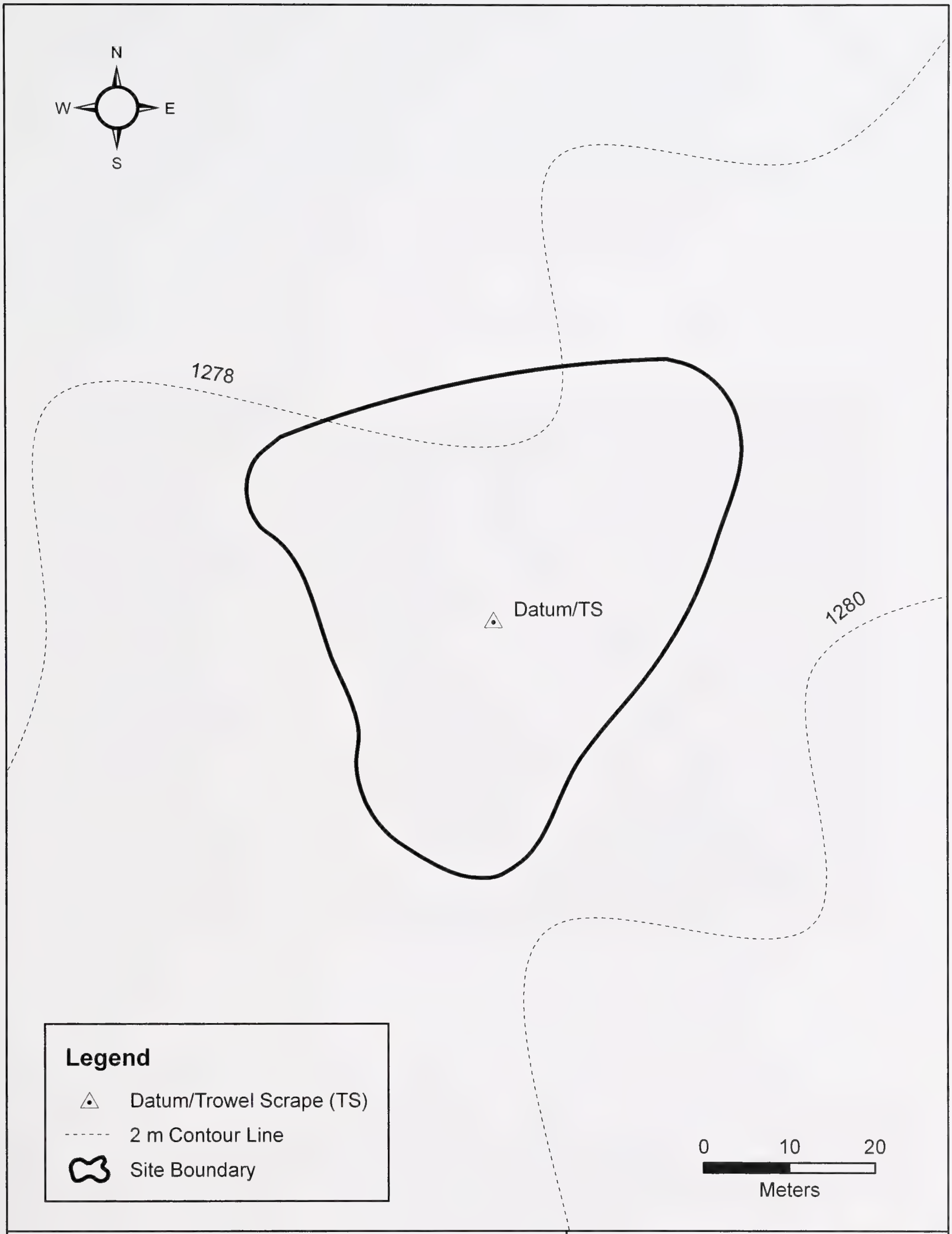

Site Sketch Map: Site No. 26Mn1652 (KEC-590-03)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-25-07

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Photograph 1 (IMACS) Site 26Mn1652 (KEC-590-3). Site overview (342°). Kautz Environmental Consultants, Inc., 2007.

IMACS SITE FORM
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

Form approved for use by
BLM - Utah, Idaho, Wyoming, Nevada
Division of State History - Utah, Wyoming
USFS - Intermountain Region
NPS - Utah, Wyoming

***1. State No.** 26Mn1653
***2. Agency No.**
3. Temp. No. KEC-590-4

Part A - Administrative Data

4. **State:** Nevada **County:** Mineral

5. **Project:** Hawthorne Survey (KEC-590)

*6. **Report No.:**

7. **Site Name / Property Name:** None

8. **Class:** [ ] Prehistoric [X] Historic [ ] Paleontologic [ ] Ethnographic

9. **Site Type:** Historic refuse scatter

*10. **Elevation:** 4,122 ft.

*11. **UTM Grid** (NAD 1983) **Zone** 11 357073 **mE** 4267376 **mN** [Datum]

*12. NW¼ of the NW¼ of the NE¼ of Section 21, T.8N., R.30E.
SW¼ of the SW¼ of the SE¼ of Section 16, T.8N., R.30E.

*13. **Meridian:** Mt. Diablo (7)

*14. **Map Reference:** *Hawthorne West, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)

15. **Aerial Photo:** None

16. **Location and Access:** Head south on Highway 95 from Fallon, Nevada. Continue roughly 80 miles to Hawthorne, Nevada. As you enter Hawthorne, Nevada turn left (east) following Highway 95 Bypass (truck route). Follow the truck route approximately 0.9 miles. From here head due north 200 meters to the airport runway. The site is located on the south side of the runway.

*17. **Land Owner:** Municipal

*18. **Federal Administrative Units:** N/A

*19. **Location of Curated Materials:** N/A

20. **Site Description:** This site is a diffuse historic refuse scatter, located on a flat valley floor, immediately north of Hawthorne, and south of Walker Lake. The site is immediately south of an old airstrip at the Hawthorne Municipal Airport. The scatter consists of about 250 artifacts, including tin cans and bottle glass, with a maximum density of 3 artifacts/m^2. No associated features were noted. The site may represent repeated dumping episodes dating as early as 1904. This site is located east of the town of Babbitt, and within 300 meters of US Highway 95, both of which may have been contributing factors. This site has been impacted by modern dumping, including modern "Miller" beer bottles, and tab-seam beverage cans. The site datum is located at the southern end of the site next to Glass 1. A trowel scrape excavated here revealed silty gravelly sands. No subsurface cultural materials were observed.

*21. **Site Condition:** [ ] Excellent (A) [ ] Good (B) [X] Fair (C) [ ] Poor (D) [ ] Inundated (E) [ ] Destroyed (F)

*22. **Impact Agent(s):** Erosion (ER), Dumping

*23. **National Register Status:** [ ] Significant (C) [X] Non-Significant (D) [ ] Unevaluated (Z)

List of Attachments:
[ ] Part B
[X] Part C
[ ] Part E
[X] Topo Map
[X] Site Sketch
[X] Photos
[ ] Artifact/Feature Sketch
[ ] Continuation Sheets
[ ] Other:

*Encoded Data Items

Part A - Administrative Data

State No. 26Mn1653
Agency No.
Temp. No. KEC-590-4

Justify: This site appears to represent multiple episodes of dumping, and contains both late historic and early modern refuse, dating to c.1931 to 1970. While this site is probably related to the towns of Babbitt and Hawthorne, and/or possibly U. S. Highway 95, all of which occur less than one mile distant, no specific historic event(s) can be assigned to this site. This site cannot be definitively associated with the life of an important historic figure(s), nor does it contain outstanding engineering features. This site is not identified on historic maps or indices of the area. Based on its lack of contextual information, its surficial nature, lack of associated features, and its relatively limited numbers and diversity of artifacts, this site does not have the potential to address historic research themes or associated questions developed for the region. Therefore, this site is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

24. Photos: KEC-590 Roll 2, Frames 10-11, 13-17

25. Recorded by: R. Breitling, N. Rhyne

***26. Survey Organization:** Kautz Environmental Consultants, Inc., Reno, Nevada (KF)

27. Assisting Crew Members: O. Lund, B. Rodela, R. Whalley ***28. Survey Date:** June 19, 2007

***29. Slope:** 0 (Degrees) **Aspect:** 0 (Degrees)

***30. Distance to Permanent Water:** 70 x 100 Meters NW

*Type of Water Source [ ] Spring/Seep (A) [ ] Stream/River (B) [X] Lake (C) [ ] Other (D)
Name of Water Source: Walker Lake

***31. Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)

32. Topographic Location - *See Guide for additional information

PRIMARY LANDFORM
[ ] Mountain spine (A)
[ ] Hill (B)
[ ] Tableland/Mesa (C)
[ ] Ridge (D)
[X] Valley (E)
[ ] Plain (F)
[ ] Canyon (G)
[ ] Island (H)
[ ] Alluvial fan (A)
[ ] Alcove/Rock Shelter (B)
[ ] Arroyo (C)
[ ] Basin (D)
[ ] Cave (E)
[ ] Cliff (F)
[ ] Delta (G)
[ ] Detached Monolith (H)

SECONDARY LANDFORM
[ ] Dune (I)
[X] Floodplain (J)
[ ] Ledge (K)
[ ] Mesa/Butte (L)
[ ] Playa (M)
[ ] Port. Geo. Feature (N)
[ ] Plain (O)
[ ] Ridge/Knoll (P)
[ ] Slope (Q)
[ ] Terrace/Bench (R)
[ ] Talus Slope (S)
[ ] Island (T)
[ ] Outcrop (U)
[ ] Spring Mound/Bog (V)
[ ] Valley (W)
[ ] Cutbank (X)
[ ] Riser (Y)
[ ] Multiple S. Landforms (1)
[ ] Bar (2)
[ ] Lagoon (3)
[ ] Ephemeral Wash (4)
[ ] Kipuka (5)
[ ] Saddle/Pass (6)
[ ] Graben (7)

Describe: The site is located on the flat valley floor, immediately north of Hawthorne and south of Walker Lake.

***33. On-site Depositional Context**

[ ] Fan (A)
[ ] Talus (B)
[ ] Dune (C)
[ ] Stream Terrace (D)
[ ] Playa (E)
[ ] Outcrop (Q)
[ ] Extinct Lake (F)
[ ] Extant Lake (G)
[ ] Alluvial Plain (H)
[ ] Colluvium (I)
[ ] Moraine (J)
[X] Flood Plain (K)
[ ] Marsh (L)
[ ] Landslide/Slump (M)
[ ] Delta (N)
[ ] Desert Pavement (P)
[ ] Stream Bed (R)
[ ] Aeolian (S)
[ ] None (T)
[ ] Residual (U)

Describe: The soil is a coarse sand. According to Blake (1991:332-333), this site appears to be located within the *Inmo-Inmo, Occasionally Flooded*, soil association. This soil type is located on alluvial fans at elevations of 4,100 to 5,200 ft. and is very gravelly loamy sand on 2-8 percent slopes.

***34. Vegetation**

***a. Life Zone** [ ] Arctic-Alpine (A) [ ] Hudsonian (B) [ ] Canadian (C) [ ] Transitional (D) [X] Upper Sonoran (E) [ ] Lower Sonoran (F)

***b. Community:** **Primary On-Site** (O) **Secondary On-Site** (O) **Surrounding Site** (O)

Aspen (A)
Spruce-Fir (B)
Douglas Fir (C)
Alpine Tundra (D)
Ponderosa Pine (E)
Lodgepole Pine (F)
Other/Mixed Conifer (G)
Pinyon-Juniper Woodland (H)
Wet Meadow (I)
Dry Meadow (J)
Oak-Maple Shrub (K)
Riparian (L)
Grassland/Steppe (M)
Desert Lake Shore (N)
Shadscale Community (O)
Tall Sagebrush (P)
Low Sagebrush (Q)
Barren (R)
Marsh/Swamp (S)
Lake/Reservoir (T)
Agriculture (U)
Blackbrush (V)
Creosote Bush (Y)
Juniper-Sage (2)

Part A - Administrative Data

State No. 26Mn1653
Agency No.
Temp. No. KEC-590-4

Describe: This site is located in a shadscale community.

*35. **Miscellaneous Text:**

References:

Blake, E. W. 1991. *Soil Survey of Mineral County Area, Nevada*. USDA Soil Conservation Service, Washington, D.C.

36. **Comments/Continuations:**

Part C - Historic Sites

State No. 26Mn1653
Agency No.
Temp. No. KEC-590-4

1. **Site Type:** Refuse scatter

*2. **Historic Theme(s):** None (A)

	CULTURAL AFFILIATION	**DATING METHOD**
*3. **Culture:**	European/American (EA) African-American (AF)	Cross-Dating/Diag. Artifacts (F)

Describe: This site may be related to the town of Babbitt, which contained both European-American and African-American populations (Molyneaux 1992). However, the artifacts here cannot be directly associated with one or both groups.

*4. **Oldest Date:** c. 1931 **Recent Date:** c. 1970

How Determined? Tin can and glass manufacturing technologies, as wells as product information.

5. **Site Dimensions:** 294 m (N/S) x 259 m (E/W) ***Area:** 30,967 sq. m

*6. **Surface Collection Method**
[X] None (A)
[ ] Grab Sample (B)
[ ] Designed Sample (C)
[ ] Complete Collection (D)

Sampling Method: N/A

*7. **Estimated Depth of Cultural Fill**
[X] Surface (A)
[ ] 0 - 20 cm (B)
[ ] 20 - 100 cm (C)
[ ] 100 cm + (D)
[ ] Fill noted but unknown (E)
[ ] Depth Suspected, but not tested (F)

How Estimated: *(If tested, show location on site map)* The lack if subsurface cultural materials in a 10 cm deep trowel scrape suggests the probability of buried cultural materials at this site is low.

*8. **Excavation Status** [ ] Excavated (A) [ ] Tested (B) [X] Unexcavated (C)

Testing Method: N/A

*9. **Summary of Artifacts and Debris** *(Refer to Guide for additional categories)*

[X] Glass (GL)
[ ] Metal (ME)
[ ] Nails (NC, NW)
[ ] Stove Parts (SP)
[ ] Insulators (IN)
[ ] Bone (BO)
[ ] Ceramics (CS)
[ ] Fabric (FA)
[ ] Mining/Milling Machinery(MN)
[ ] Building Hardware (BH)
[ ] Leather (LE)
[ ] Wire (WI)
[X] Tin Cans
[ ] Mining Tools (MT)
[ ] Tar Paper (TP)
[ ] Ammunition (AM)
[ ] Wood (WD)
[ ] Rubber (RB)
[ ] Shoes (SO)
[ ] Tobacco Tins (TO)
[ ] Domestic Items (DI)
[ ] Kitchen Utensils (KU)
[ ] Car/Car Parts (CR)
[ ] Brick (BR)
[ ] Clock Parts (CT)

Describe: This site is a diffuse scatter of historic and early modern refuse. Artifacts number approximately 250 and include c. 370 tin cans (cylindrical, rectangular, sanitary, external friction, spice oblong, vent hole), and 30 colorless bottle glass fragments. No artifact concentrations were noted. A random sample of the artifact types was conducted to determine the age of the site.

10. **Ceramic Artifacts:**

#	**PASTE**	**GLAZE/SLIP**	**DECORATION**	**PATTERN**	**VESSEL FORM(S)**

a. **Estimated Number of Ceramic Trademarks:** None

Describe: None observed.

11. **Glass:**

	#	**MANUFACTURE**	**COLOR**	**FUNCTION**	**TRADEMARKS**	**DECORATION**
Glass 1	30	ABM	Colorless	Bottle glass	See below	None

Describe: [*Note:* The term mold blown is used to indicate that the bottle glass was blown into a mold for shape by either mouth or machine. ABM refers to automatic bottle machine, which is used here to represent both ABM and Semi-ABM if there is no available information to indicate that the bottle was made by a semi-automatic bottle machine.] **Glass 1** consists of 30 fragments of colorless glass from two bottles with applied color labels: 1) “Farr” in white script, 2) “...tter b... / RENO” clear letters on a white background with a red border, and 3) “[circle in red with two red circular lines around it] / ...verages / ..., NEV.” These appear to be from a single bottle that may be a “Farr” beverage,

Part C - Historic Sites

State No. 26Mn1653
Agency No.
Temp. No. KEC-590-4

bottled in Reno, Nevada. Applied color labels date from 1934 to c. 1965 (Beverage World 1982:114; Jones and Sullivan 1989:16, 76; Munsey 1970:52).

12. Maximum Density - #/sq. m (glass and ceramics): 15/sq. m

13. Tin Cans: [*Note:* The measurements follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.]

	#	**TYPE**	**OPENING**	**SIZE**	**MODIFIED**	**LABEL/MARK**	**FUNCTION**
Tin Can 1	1	Unknown	Rotary	404 x 308	No	"DINTY MOORE"	Beef stew
Tin Can 2	100	Cylindrical	P-38	211 x 011	No	"RASPBERRY / JAM / ½ OZ. NET. / TEA GARDEN /PRODUCTS CO. / SAN FRAN-CA."	Jam
Tin Can 3	20	Rectangular	Pour spout	202 x 408 x 104	No	OIL LUBRICATING / PRESSURE, LIGHT"	Lubricant
	70	Sanitary	Rotary, P-38 and C-cut	208 x 306; 211 x 305 300 x 308; crushed	No	None	Fruit/Soup/Veg.
	80	External friction	Key-wind side strip	Various	No lid	"COFFEE" on one	Coffee, unknown
	20	Spice oblong	Sprinkle top	215 x 309 x 110	No	None	Spices
	80	Vent hole	2x screw driver punch	214 x 315	No	None	Evaporated milk

Describe: **Tin Can 1** is probably a sanitary type. *Hormel* introduced their *Dinty Moore* stew in 1935 (Hormel Foods Corporation 2007). Although rotary openers were invented and available as early as 1870, they were not in common use until after the introduction of the sanitary can in c. 1904 (Rock 1989:188). **Tin Can 2** is a two-piece drawn type cylindrical can that appears to have been part of a C-Ration kit used between World War II and the Viet Nam War, c. 1942 to 1970s (Digger History n.d.). The P-38 can opener was created at the Subsistence Research Laboratory in Chicago in 1942 for immediate use by the military in opening canned food in the field (Foster n.d.; Georgia Outfitters 2006:2). Two patents for the opener were listed in 1946 by Samuel Bloomfield (Patent No. 2,412,946 - USPTO 2006a), and John W. Speaker (Patent No. 2,413,528 - USPTO 2006b). **Tin Can 3** has an internal rolled seam and crimped ends. Sanitary cans have a long history of use, from c. 1904 to the present (Rock 1989:52, 61-62). Coffee cans opened by a key-wind side strip that leaves an external type lid were in use as early as the 1910s, with major companies using this method in the 1920s and general use in the 1930s until the 1960s, when sanitary type cans with attached plastic lids for a tight seal replaced them (Rock 1989:81-95). Spice oblong tins date from c. 1906 (Pulati 1973:76-77; Rock 1989:54) to possibly as late as the 1970s or 1980s, when the lids were changed to the current multi-part plastic openings. Vent hole cans of this size have been identified as the No. 1B, dating from c. 1931 to c. 1985 (Bitting 1937:751; Edwards et al. 1990:100-101); or as Type 11, 1917-1929; Type 12, 1917-1929; Type 19, 1930-1975; or Type 21, 1950-c. 1985 (Simonis 1997). Bowyer (2002:113-114) determined a height range for this sized milk can of 314 to 400.

***14. Landscape and Constructed Features (locate on site map) -** *(See Guide for additional categories)*

[ ] Trail/Road (TR)
[ ] Tailings (MT, ML)
[ ] Rock Alignment (RA)
[ ] Cairn (AI)
[ ] Dump (DU)
[ ] Depression (DE)
[ ] Cemetery/Burial (CB)
[ ] Prospect Hole (PH)
[ ] Dam, Earthen (DA)
[ ] Ditch (DI)
[ ] Inscriptions (IN)
[ ] Hearth/Campfire (HE)
[ ] Quarry (QU)
[ ] Other (OT)

Describe: None

***15. Buildings and Structures (locate on site map):**

#	**MATERIAL**	**TYPE**

Describe: None

16. Comments/Continuations - *(Please make note of any Historic Record searches performed (for example - County Records, General Land Office, Historical Society, Land Management Agency Records, Oral Histories/Interviews)*

References:

Beverage World. 1982. 100 Years of Packaging. *Beverage World 1882-1982, 100 Year History/Future Probe*, pp. 105-122.

Part C - Historic Sites

State No. 26Mn1653
Agency No.
Temp. No. KEC-590-4

Bitting, A. W. 1937. *Appertizing or The Art of Canning; Its History and Development.* The Trade Pressroom, San Francisco, California.

Bowyer, G. C. 2002. Twentieth Century Material Culture Variability: Valve Marks, Milk Cans, and Tobacco Tins. In *Contributions to the Archaeology of Oregon*, edited by L. A. Speulda and G. C. Bowyer, pp. 109-119. Occasional Papers No. 7. Association of Oregon Archaeologists.

Digger History. n.d. Unofficial history of the Australian & New Zealand Armed Forces - Food: D & C Rations. Electronic document, http:www.diggerhistory.info/pages-food/c-rations.htm, accessed June 25, 2007.

Edwards, S. R., M. E. Kimball, and M. E. Roberson. 1990. *The Archaeological Testing and Evaluation of the "Fairview Mining Complex" Site CRNV61-360/26NY5989 for Round Mountain Gold Corporation, Round Mountain, Nye County, Nevada.* Division of Anthropological Studies, Environmental Research Center, Barrick Museum of Natural History, University of Nevada-Las Vegas. DAS Report 5-126-1b. On file, USDI Bureau of Land Management, Tonopah Field Office, Tonopah, Nevada, Report No. CRR6-1301-1.

Foster, R. (Major). n.d. The Folding Can Opener, The P38. In Unofficial history of the Australian & New Zealand Armed Forces - Food: D & C Rations. Electronic document, http:www.diggerhistory.info/pages-food/c-rations.htm, accessed June 25, 2007.

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Hormel Foods Corporation. 2007. *Corporate History.* Electronic document, http://www.hormel.com/templates/corporate.asp?/catitemid=71&id=18, accessed June 29, 2007.

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Molyneaux, M. 1992. Hawthorne Army Ammunition Plant - Babbitt Housing Area. Unpublished manuscript. On file, Mineral County Courthouse, Hawthorne, Nevada.

Munsey, C. 1970. *The Illustrated Guide to Collecting Bottles.* Hawthorn Books, Publishers, New York.

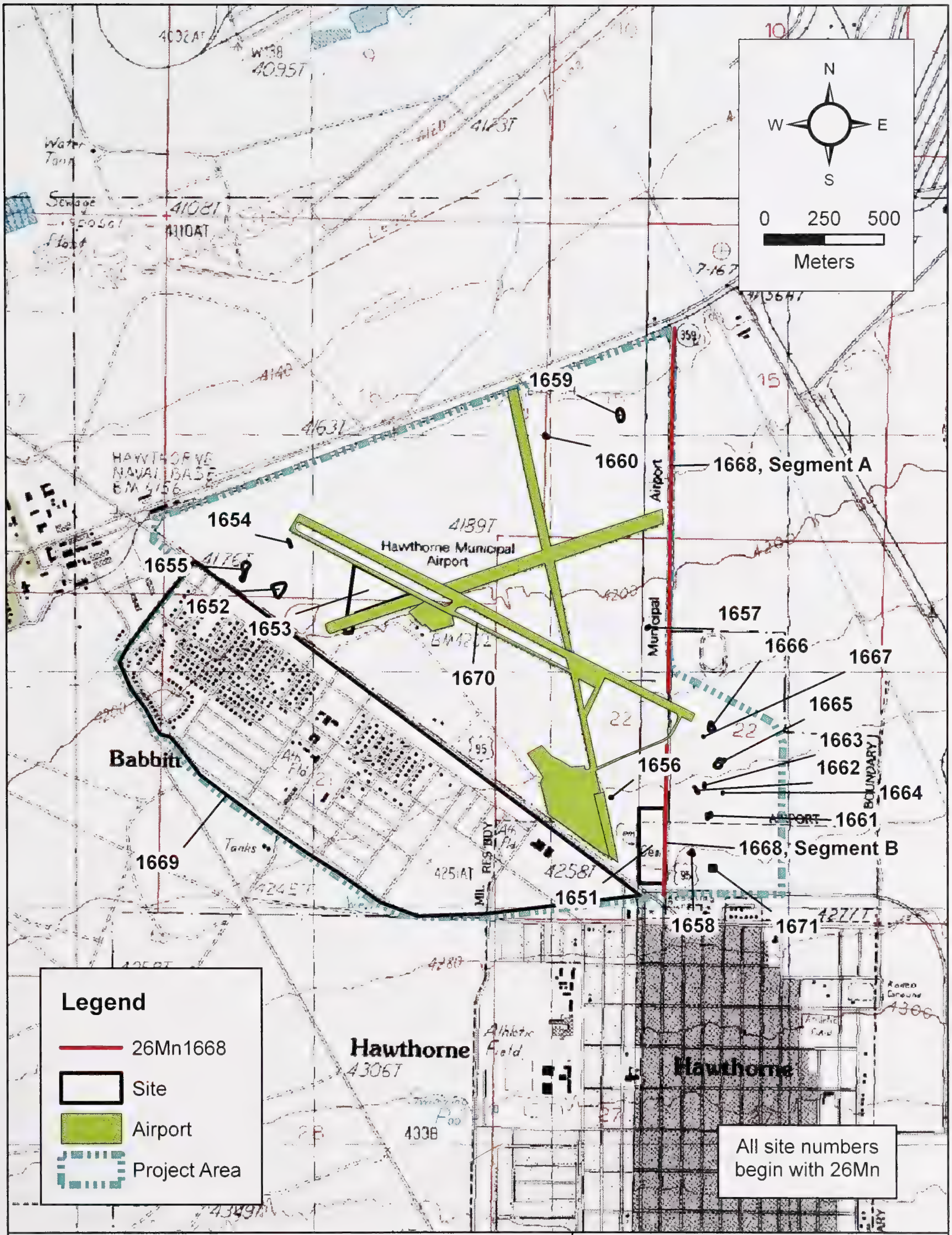
Pulati, E. 1973. *Illustrated Tin Container Guide.* Privately published, Santa Ana, California.

Rock, J. T. 1989. *Tin Canisters: Their Identification.* Ms. on file, USDA Forest Service, Klamath National Forest, Yreka, California.

Simonis, D. 1997. *Simonis Can Guide.* USDI Bureau of Land Management, Kingman Field Office, Kingman, Arizona.

United States Patent and Trademark Office (USPTO). 2006a. USPTO Patent Full-Text and Image Database. Electronic document, http://patft.uspto.gov/netahtml/srchnum.htm, accessed June 26, 2006. [Listed 24 December 1946]

2006b. USPTO Patent Full-Text and Image Database. Electronic document, http://patft.uspto.gov/netahtml/srchnum.htm, accessed June 26, 2006. [Listed 31 December 1946]



Site Location Map: Site No. 26Mn1653 (KEC-590-4)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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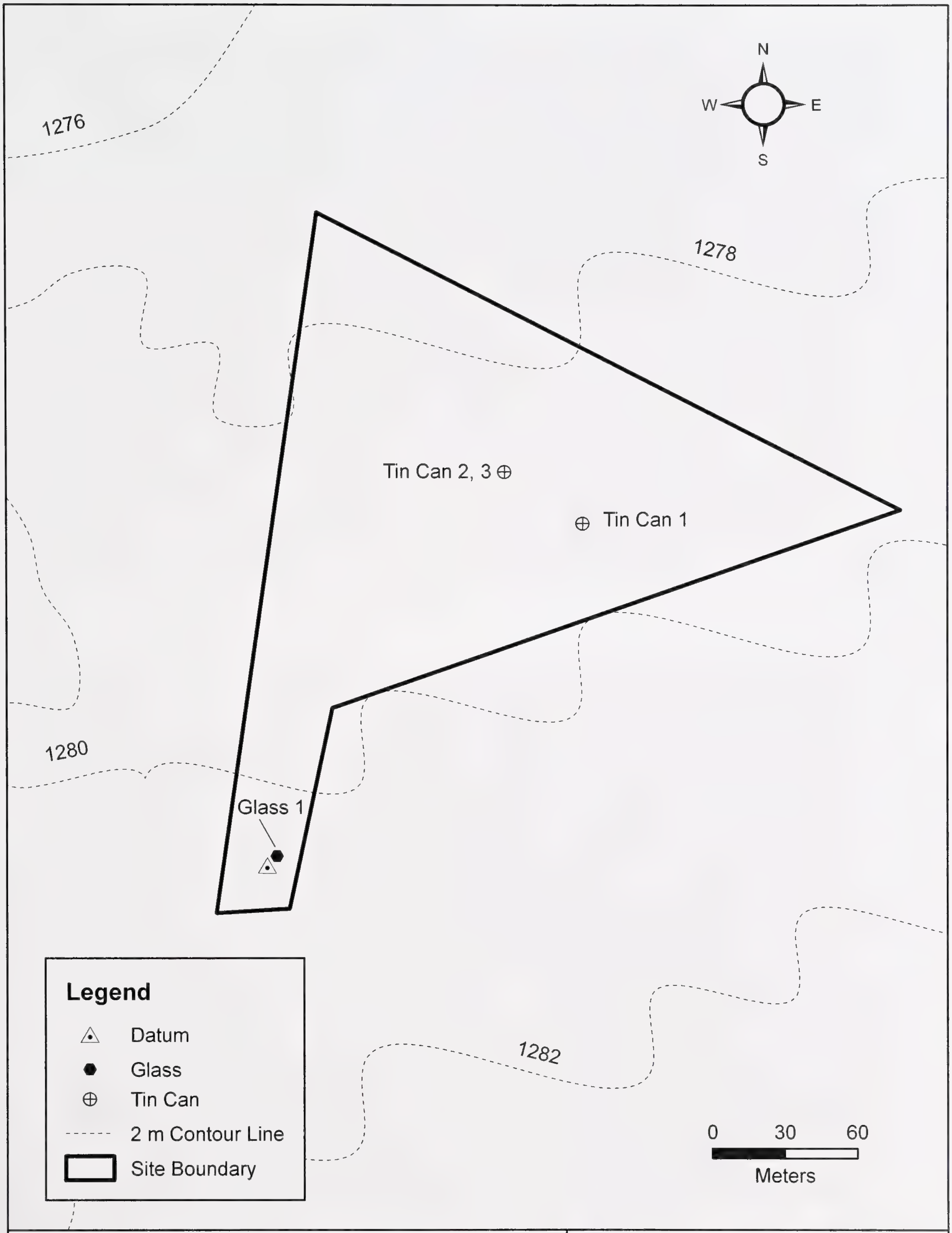

Site Sketch Map: Site No. 26Mn1653 (KEC-590-04)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-25-07

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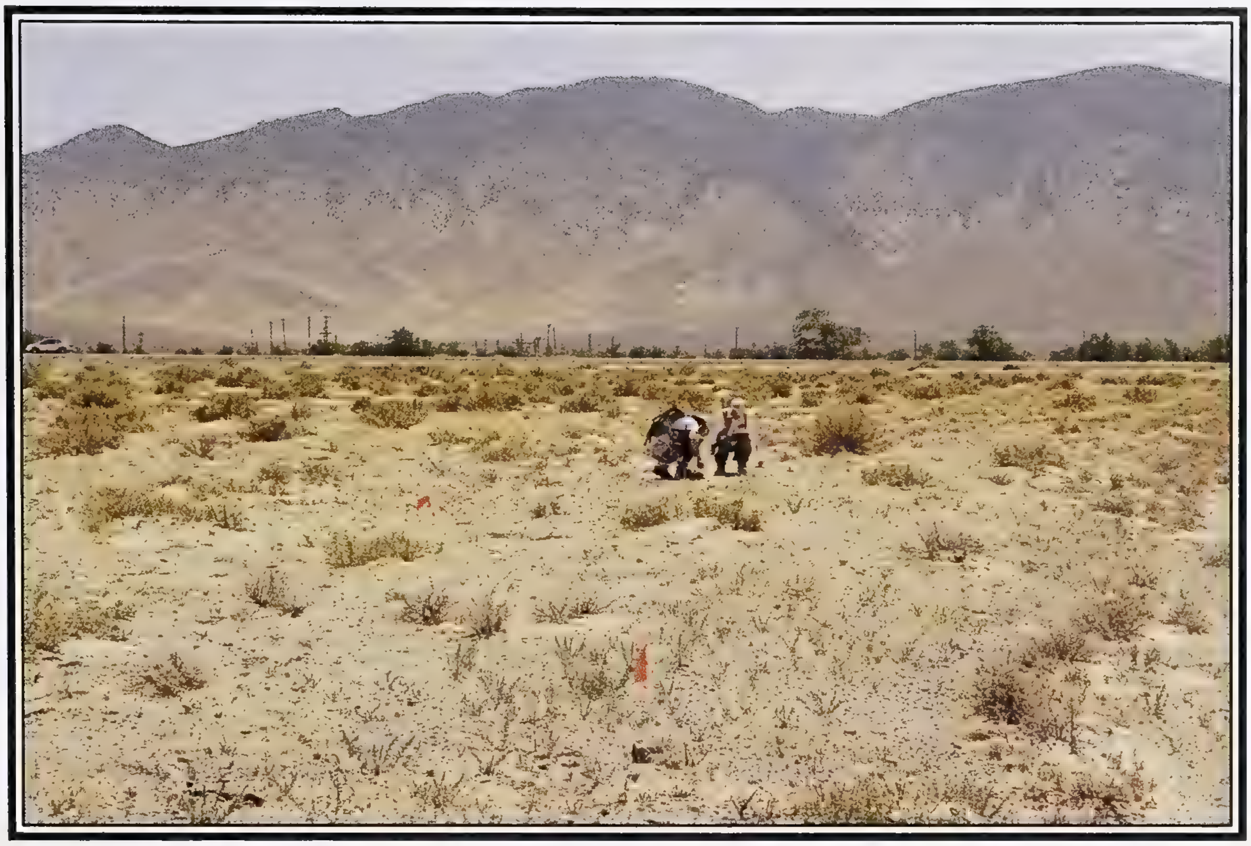
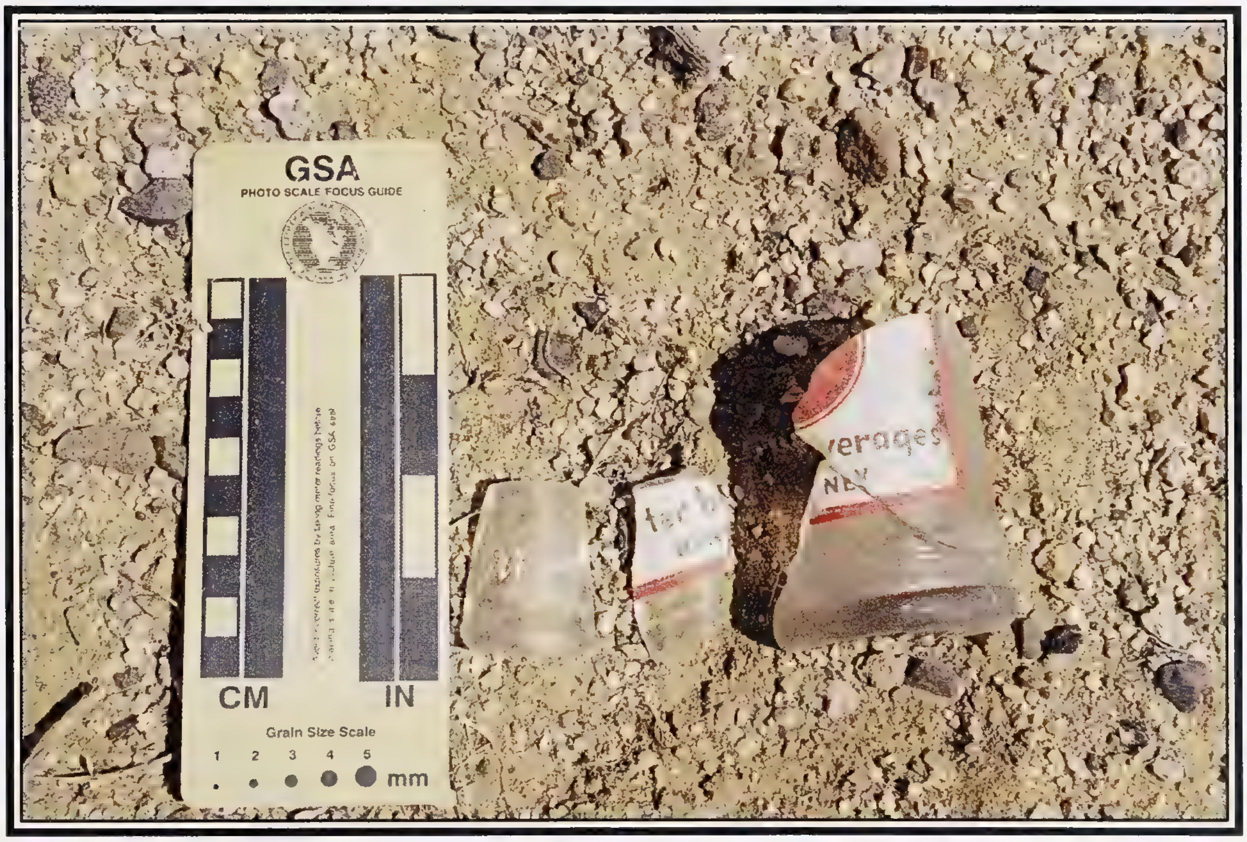
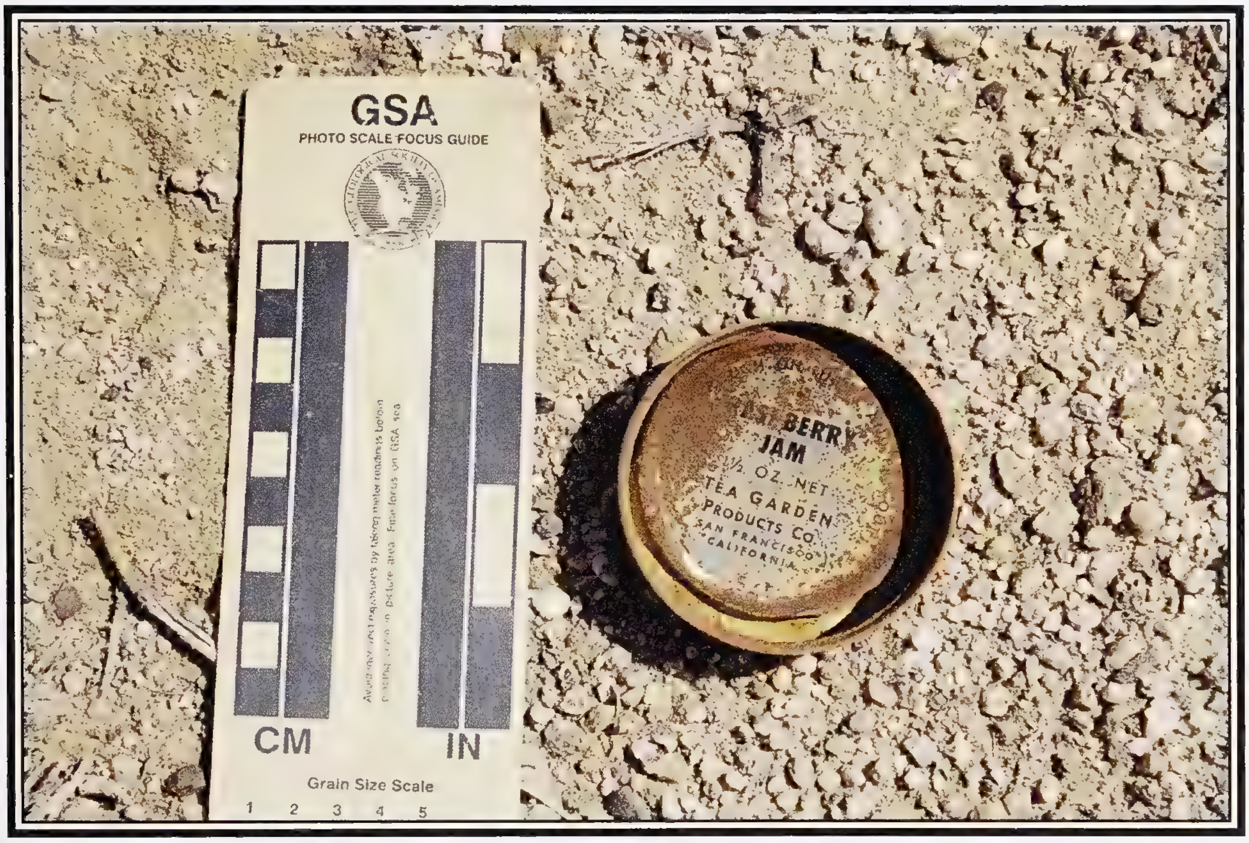


Photograph 1 (IMACS) Site 26Mn1653 (KEC-590-4). Site overview (240°). Kautz Environmental Consultants, Inc., 2007.



Photograph 2 (IMACS) Site 26Mn1653 (KEC-590-4). Glass 1 (240°). Kautz Environmental Consultants, Inc., 2007.



Photograph 3 (IMACS) Site 26Mn1653 (KEC-590-4). Tin can 2, Raspberry jam can "Tea Garden Products" (Detail). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible X Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

*1. **State Site No.:** 26Mn1654 *2. **Agency Site No.:** 3. **Temp Site No.:** KEC-590-5

4. **Project Name:** Hawthorne Survey (KEC-590) 5. **NSM Report Number:**

*6. **Agency Report Number:** **County:** Mineral

7. **Site/Property Name:** None

8. **Site Class:** Prehistoric __ Historic X **Historic Theme/Affiliation:** None; European/American (EA)

Site Area: 32 m N/S x 6 m E/W (Area: 116 sq. m) **Age:** c. 1942 to 1970s

Dating Method: Cross-Dating/Diag. Artifacts (F) **Depth of Cultural Fill:** Surface (A)

9. **Site Description:** This site is a small, sparse historic refuse scatter, located on a flat valley floor north of Hawthorne, and south of Walker Lake. The scatter consists of eight tin cans (four sanitary, one key-wind, one two-piece drawn, two multi-friction) at the end of runway "A-10" at the Hawthorne Municipal Airport. The maximum density of artifacts is 1/m^2. No features were associated with this site. The site datum and a 10cm^3 trowel scrape are located in the approximate center of the scatter. The trowel scrape yielded sandy silty soils, and contained no subsurface cultural materials.

National Register Significance: This site appears to represent a single dumping episode, dating from c. 1942 to the 1970s. While this site is probably related to the towns of Babbitt and Hawthorne, and/or possibly U. S. Highway 95, all of which occur less than one mile distant, no specific historic event(s) can be assigned to this site. This site cannot be definitively associated with the life of an important historic figure(s), nor does it contain outstanding engineering features. This site is not identified on historic maps or indices of the area. Based on its lack of contextual information, its surficial nature, lack of associated features, and its relatively limited numbers and diversity of artifacts, this site does not have the potential to address historic research themes or associated questions developed for the region. Therefore, this site is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

*10. **Elevation:** 4,114 ft. *11. **UTM Grid Zone (NAD 1983):** Zone 11 356821 **mE** 4267738 **mN** [Datum]

*12. **Township/Range** (To quarter section only): SW¼ of Section 16, T.8N., R.30E.

*13. **Meridian:** Mt. Diablo (7)

*14. **Map Reference:** *Hawthorne West, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)

*15. **Land Owner:** Municipal *16. **Federal Administrative Unit:** N/A

*17. **Distance to Permanent Water:** 57 x 100 m NW, Walker Lake **Type:** (A) spring __ (B) stream/river__ (C) lake X (D) other__

*18. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)

*19. **Topographic Location/Primary Landform:** Valley (E) *20. **Depositional Context:** Flood Plain (K)

*21. **Vegetation Community** (primary only): Shadscale Community (O)

22. **Photographs** (Roll & Frame Nos.): KEC-590 Roll 3, Frame 3

23. **Recorded by:** R. Breitling **Date:** June 20, 2007

*24. **Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Artifact Summary: Note: The measurements of the tin cans follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2-6/16 in. x 3-5/16 in. x 1-4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.

Count/density	Material	Artifact/code	Comments
2	Metal (ME)	Utility can (CU)	Two cylindrical, multiple friction opened, internal friction seam, crimped end, 208 x 106 and 404 x 414, function unknown. Multi-friction cans have been manufactured since 1906, and generally contain paint products (Rock 1989:122-123).
5	Metal (ME)	Sanitary can (TC)	Five sanitary, opened by P-38 or P-51, bayonet punch, and church key, sizes include 210 x 304 and 210 x 410. Bayonet openers have a general use period from c. 1906 to date, church key openers date from 1935, and P-38 openers have been in use since 1942, while P-51 has been use since the World War II period (Georgia Outfitters 2006:2, 15).
1	Metal (ME)	Key-opened tin cans (KC)	One cylindrical, key-wind side strip opened, crushed, (310 x 212). Non-coffee cylindrical cans opened by a key-wind side strip have no listed introduction date, but may have been in use as early as c. 1900 to the 1980s (IMACS 1992:471.6; Rock 1989:81-95, 40, 140).
1	Metal (ME)	Tin can (TZ)	One cylindrical, opening not noted, two-piece drawn, crimped end, 212 x 012, jam. This can fits the size of a C-ration can of jam, dating from World War II through the Viet Nam War in the 1970s (Digger History n.d.).

Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s

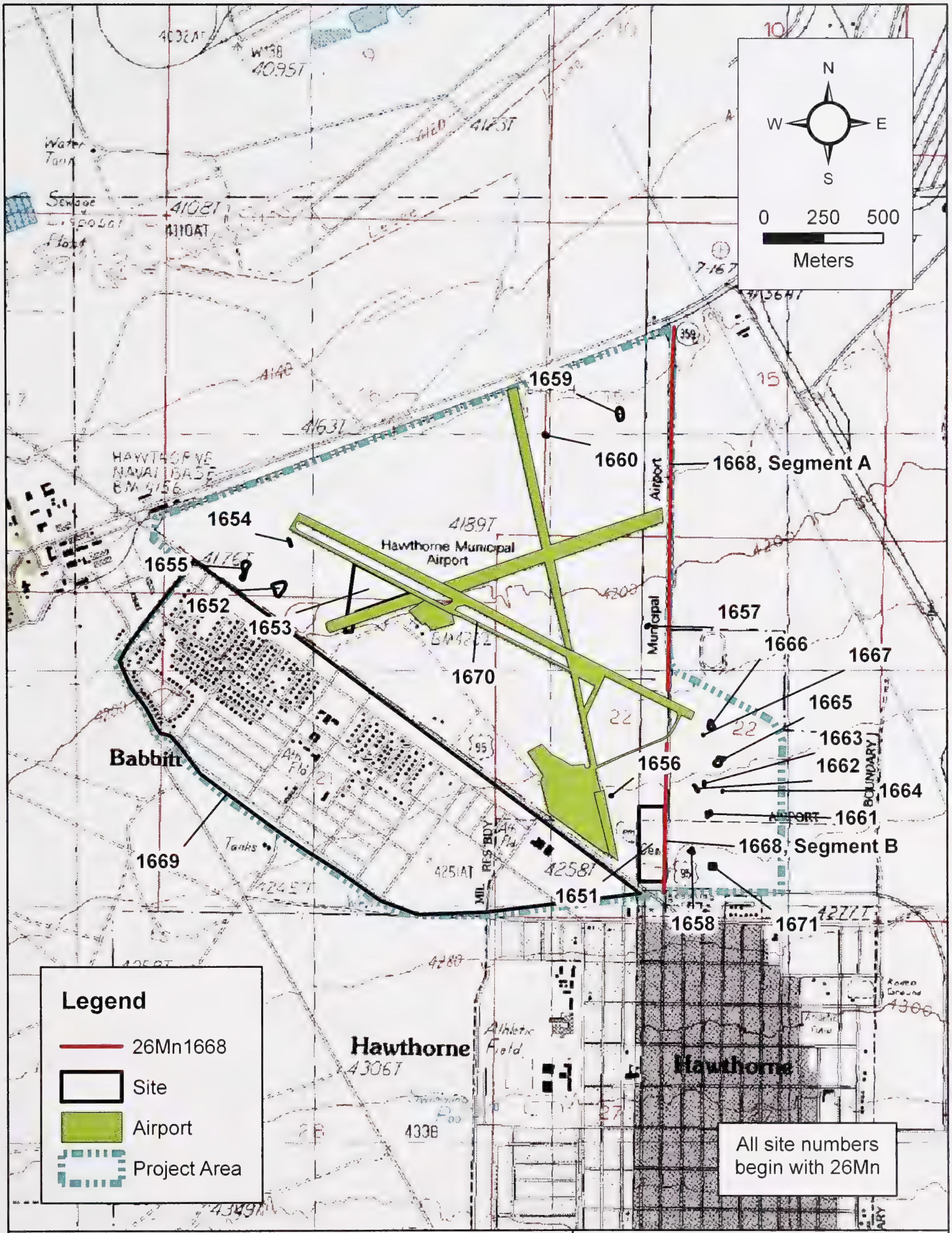
References:

Digger History. n.d. Unofficial history of the Australian & New Zealand Armed Forces - Food: D & C Rations. Electronic document, http:www.diggerhistory.info/pages-food/c-rations.htm, accessed June 25, 2007.

Georgia Outfitters. 2006. "The Army's Greatest Invention": The P-38 Can Opener. Electronic document, http://www.georgia-outfitters.com/page52.shtml, access May 22, 2006.

Intermountain Antiquities Computer System (IMACS). 1992. *User's Guide: Instructions and Computer Codes for Use with the IMACS Site Form.* Revised. University of Utah, Bureau of Land Management, and the U.S. Forest Service.

Rock, J. T. 1989. *Tin Canisters: Their Identification*. Ms. on file, USDA Forest Service, Klamath National Forest, Yreka, California.



All site numbers begin with 26Mn

Site Location Map: Site No. 26Mn1654 (KEC-590-5)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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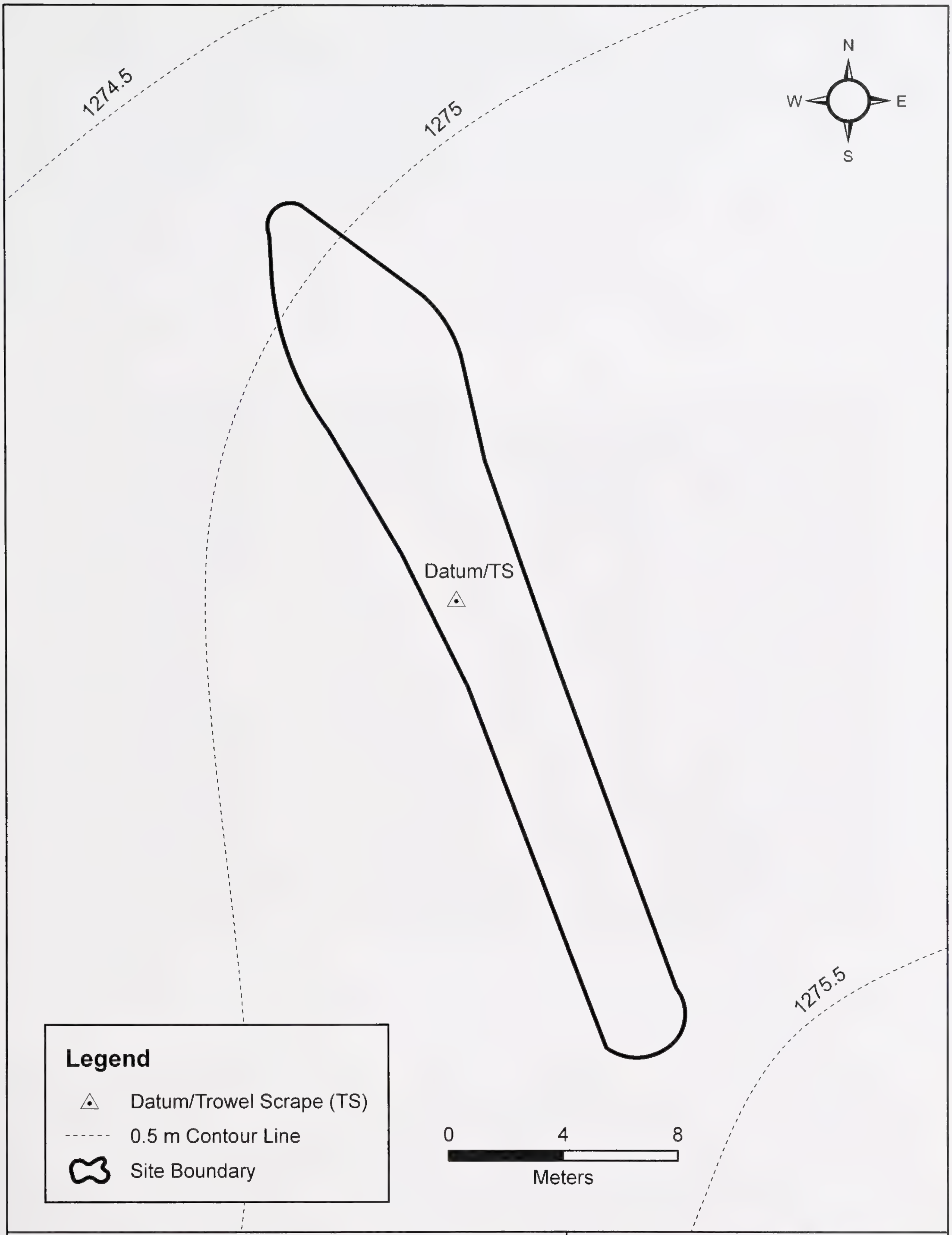

Site Sketch Map: Site No. 26Mn1654 (KEC-590-05)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-25-07

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Photograph 1 (IMACS) Site 26Mn1654 (KEC-590-5). Site overview (258°). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible _X_ Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

*1. **State Site No.:** 26Mn1655 *2. **Agency Site No.:** 3. **Temp Site No.:** KEC-590-7
4. **Project Name:** Hawthorne Survey (KEC-590) 5. **NSM Report Number:**
*6. **Agency Report Number:** **County:** Mineral
7. **Site/Property Name:** None
8. **Site Class:** Prehistoric __ Historic _X_ **Historic Theme/Affiliation:** None (A); European/American (EA)
Site Area: 81 m N/S x 32 m E/W (Area: 1,344 sq. m) **Age:** c. 1935 to 1970s
Dating Method: Cross-Dating/Diag. Artifacts (F) **Depth of Cultural Fill:** Surface (A)

9. **Site Description:** This site is a small, sparse historic refuse scatter, located on a flat valley floor north of Hawthorne, and south of Walker Lake. The scatter contains two upright pocket tobacco tins, a key-wind can, three flat-top steel beverage cans, a large fuel can, dimensioned lumber fragments, and asbestos shingles. A complete inventory of artifacts was done. The maximum density of artifacts is 1/m^2. The site is located just east of the town of Babbitt, and the lumber and shingles are the remains of Babbitt employee housing which has been demolished. The relationship between the tin cans and the house remains is unknown. No features were associated with this site. The site datum and a 10cm^3 trowel scrape are located in the approximate center of the scatter. The trowel scrape yielded sandy silty soils, and no subsurface cultural materials.

National Register Significance: This site may represent several dumping episodes of artifacts and structural remains, dating from c. 1935 to the 1970s. While this site is probably related to the towns of Babbitt and Hawthorne, and/or possibly U. S. Highway 95, all of which occur less than one mile distant, no specific historic event(s) can be assigned to this site. This site cannot be definitively associated with the life of an important historic figure(s), nor does it contain outstanding engineering features. This site is not identified on historic maps or indices of the area. Based on its lack of contextual information, its surficial nature, lack of associated features, and its relatively limited numbers and diversity of artifacts, this site does not have the potential to address historic research themes or associated questions developed for the region. Therefore, this site is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

*10. **Elevation:** 4,115 ft. *11. **UTM Grid Zone (NAD 1983):** Zone 11 356632 **mE** 4267608 **mN** [Datum]
*12. **Township/Range** (To quarter section only): SW¼ of Section 16, T.8N., R.30E.
*13. **Meridian:** Mt. Diablo (7)
*14. **Map Reference:** *Hawthome West, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
*15. **Land Owner:** Municipal *16. **Federal Administrative Unit:** N/A
*17. **Distance to Permanent Water:** 58 x 100 m NW, Walker Lake **Type:** (A) spring __ (B) stream/river__ (C) lake _X_ (D) other__
*18. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
*19. **Topographic Location/Primary Landform:** Valley (E) *20. **Depositional Context:** Flood Plain (K)
*21. **Vegetation Community** (primary only): Shadscale Community (O)
22. **Photographs** (Roll & Frame Nos.): KEC-590 Roll 3, Frames 8, 9
23. **Recorded by:** R. Breitling **Date:** June 20, 2007
*24. **Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Artifact Summary: Note: The measurements of the tin cans follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2-6/16 in. x 3-5/16 in. x 1-4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.

Count/density	Material	Artifact/code	Comments
2	Metal (ME)	Tobacco Tin (TO)	Two upright pocket tobacco, external friction lid with wire pin hinge, strike plate on base, one measuring 300 x 406 x 015, one crushed. Tobacco tins with external friction openings date from c. 1901 to c. 1972 (Cleeland 1984:22; Rock 1989:150-152).
1	Metal (ME)	Key-opened tin can (KC)	One cylindrical, key-wind side strip opened, internal rolled seam, crimped end, crushed, 208 h; has an estimated date range of c. 1900 to the c. 1980s (Rock 1989:40, 140).
3	Metal (ME)	Tin can (TZ)	Three flat top beverage, all steel, 2x church key opened, 210 x 412; lithography reads "CM...REWERY / SAN FRANCISCO....IFO..NIA / INTERNAL R...CM... / BEE... / NET CONTENTS / 12 FLUID OUNCES;" the can type dates from 1935 to the 1970s for beer (Martells 1976:6-10, 32-33; Rock 1989:72), although with the possibility of Internal Revenue information on the can, it may date from 1935 to the 1940s or 1950s.
1	Metal (ME)	Can - Utility (CU)	**Tin can 1:** Tall cylindrical, threaded pour spout, medium gauge wire handle, 1110 x 1312, fuel.

State Site No.: 26Mn1655 **Agency Site No.:** **Temp Site No.:** KEC-590-7

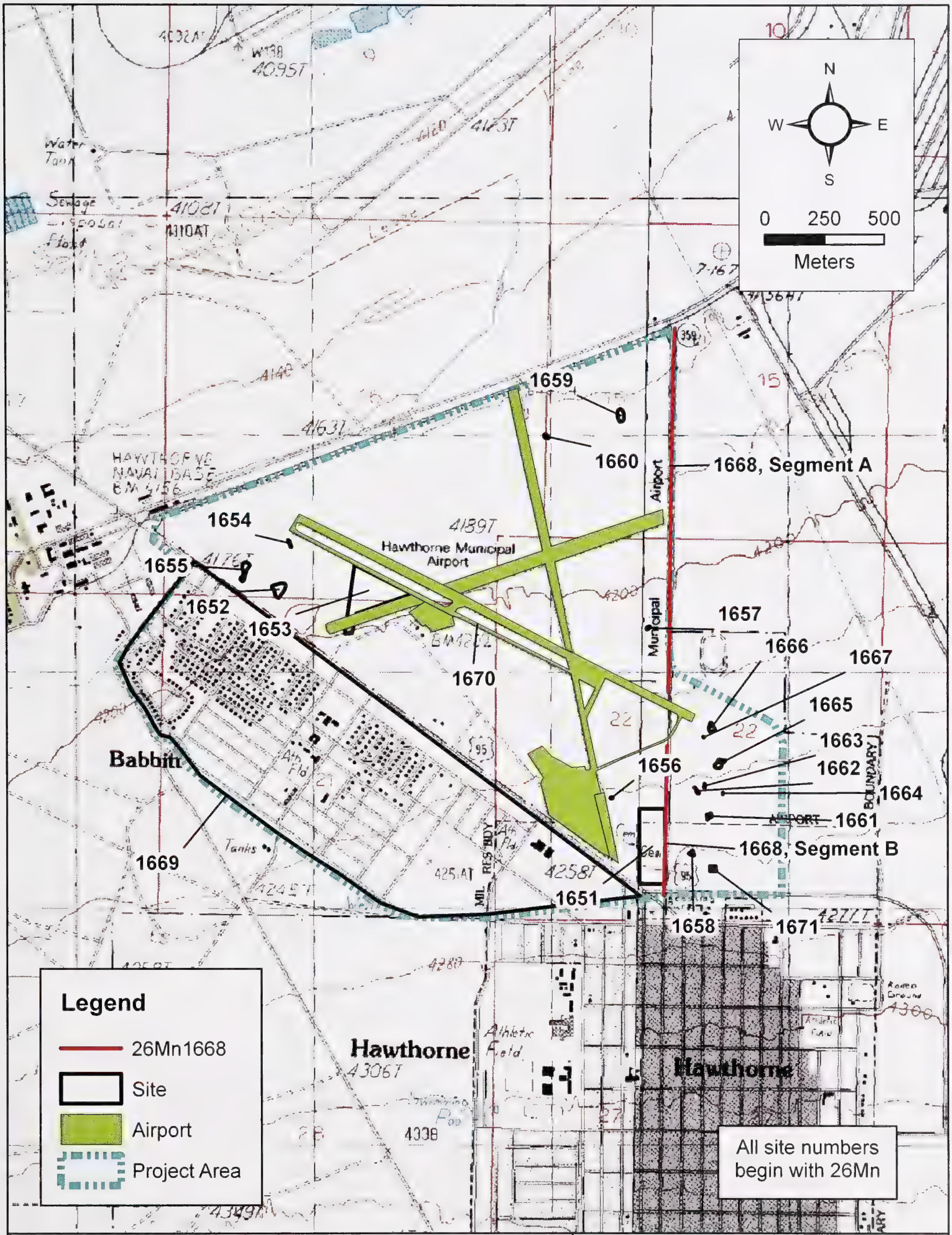
Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)

References:

Cleeland, T. A. (compiler). 1984. *Historic Artifact Dating Guide.* Archaeology Laboratory, Northern Arizona University, Flagstaff, Arizona.

Martells, J. 1976. *The Beer Can Collector's Bible.* Ballantine Books, New York.

Rock, J. T. 1989. *Tin Canisters: Their Identification.* Ms. on file, USDA Forest Service, Klamath National Forest, Yreka, California.



Site Location Map: Site No. 26Mn1655 (KEC-590-7)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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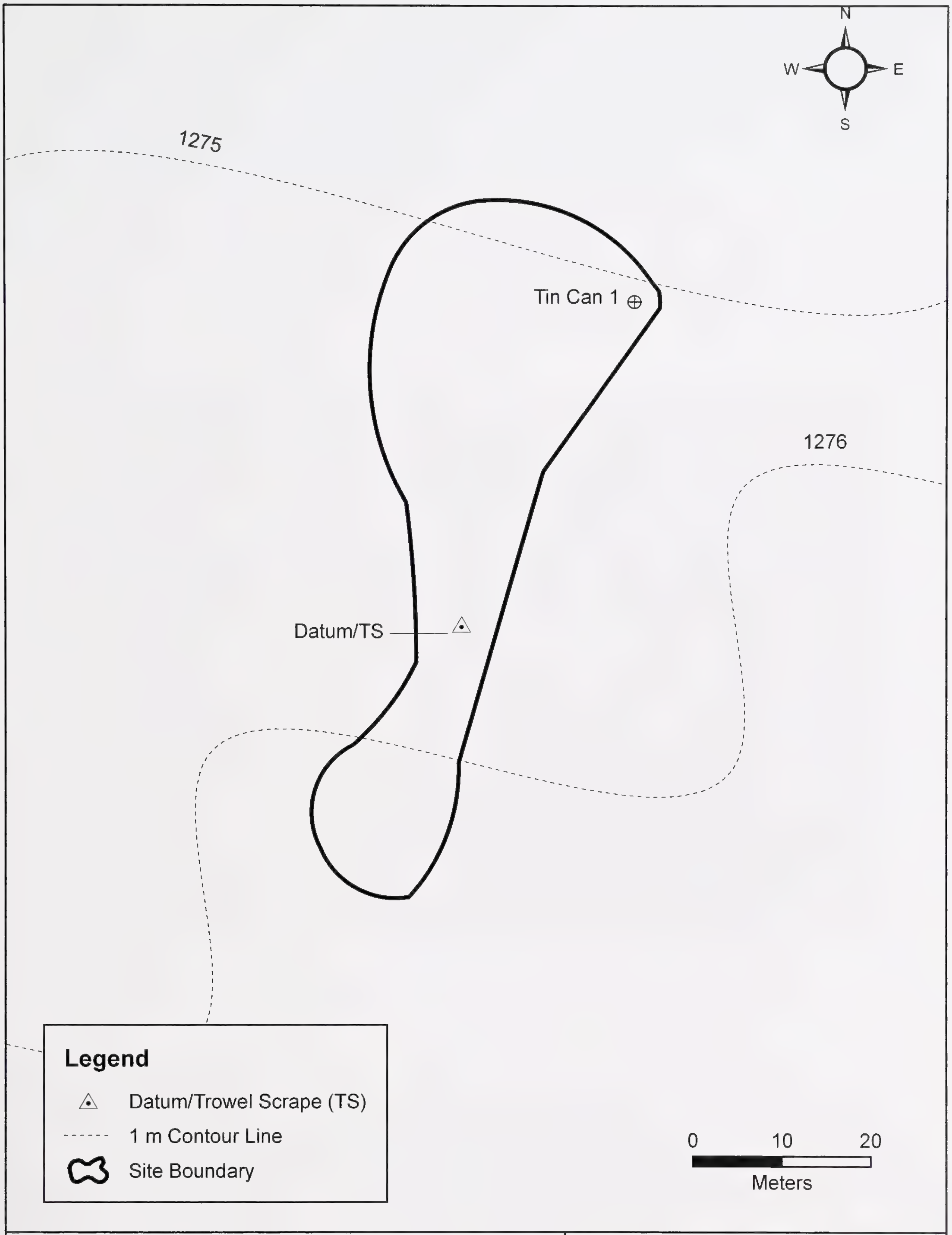

Site Sketch Map: Site No. 26Mn1655 (KEC-590-07)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-25-07

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Photograph 1 (IMACS) Site 26Mn1655 (KEC-590-7). Site overview (10°). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible _X_ Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

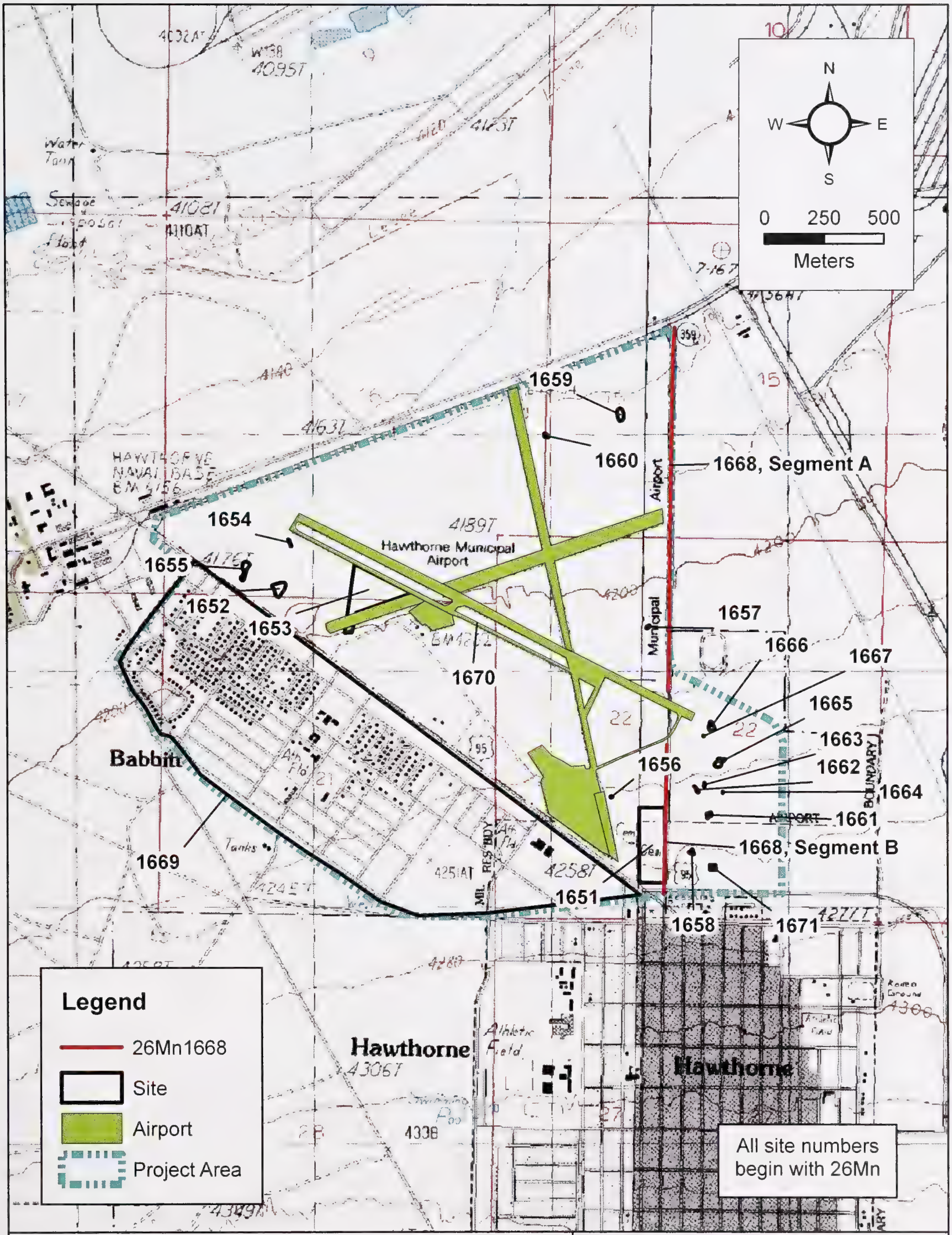
*1. **State Site No.:** 26Mn1656 *2. **Agency Site No.:** 3. **Temp Site No.:** KEC-590-8
4. **Project Name:** Hawthorne Survey (KEC-590) 5. **NSM Report Number:**
*6. **Agency Report Number:** **County:** Mineral
7. **Site/Property Name:** None
8. **Site Class:** Prehistoric _X_ Historic __ **Historic Theme/Affiliation:** None (A); Unknown Aboriginal (Z)
Site Area: 7 m N/S x 10 m E/W (Area: 51 sq. m) **Age:** Unknown (Z)
Dating Method: None (A) **Depth of Cultural Fill:** Surface (A)

9. **Site Description:** This site is a small prehistoric lithic scatter, located on a flat valley floor south of Walker Lake and north of Hawthorne. This site has five obsidian flakes. No prehistoric formed tools, temporally diagnostic artifacts, or features were observed. Of the five flakes, one is a core reduction flake, three are biface thinning flakes, and one is a pressure flake. Several of the flakes are very worn. This site is surrounded by modern developments. Artifact collection may have occurred at the site. A trowel scrape in the approximate center of the site revealed a loose, sandy depositional environment. This location is also the site datum. There was no indication of subsurface cultural materials.

National Register Significance: This site is a small prehistoric lithic scatter, which appears to have been significantly impacted by modern developments and possibly artifact collection. This site is not characterized by an abundance or diversity of prehistoric lithic artifacts; does not contain temporally diagnostic artifacts, has no prehistoric features, and appears entirely confined to the surface. Consequently, it does not contain data addressing the prehistoric research themes and associated questions developed for the region. Therefore, this site is recommended as not significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, d).

*10. **Elevation:** 4,159 ft. *11. **UTM Grid Zone (NAD 1983):** Zone 11 358177 **mE** 4266663 **mN** [Datum]
*12. **Township/Range** (To quarter section only): SW¼ of Section 22, T.8N., R.30E.
*13. **Meridian:** Mt. Diablo (7)
*14. **Map Reference:** *Hawthorne West, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
*15. **Land Owner:** Municipal *16. **Federal Administrative Unit:** N/A
*17. **Distance to Permanent Water:** 74 x 100 meters NW **Type:** (A) spring __ (B) stream/river__ (C) lake _X_ (D) other__
Walker Lake
*18. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
*19. **Topographic Location/Primary Landform:** Valley (E) *20. **Depositional Context:** Flood Plain (K)
*21. **Vegetation Community** (primary only): Shadscale community (O)
22. **Photographs** (Roll & Frame Nos.): KEC-590 Roll 2, Frame 20
23. **Recorded by:** N. Rhyne **Date:** June 21, 2007
*24. **Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)



Site Location Map: Site No. 26Mn1656 (KEC-590-8)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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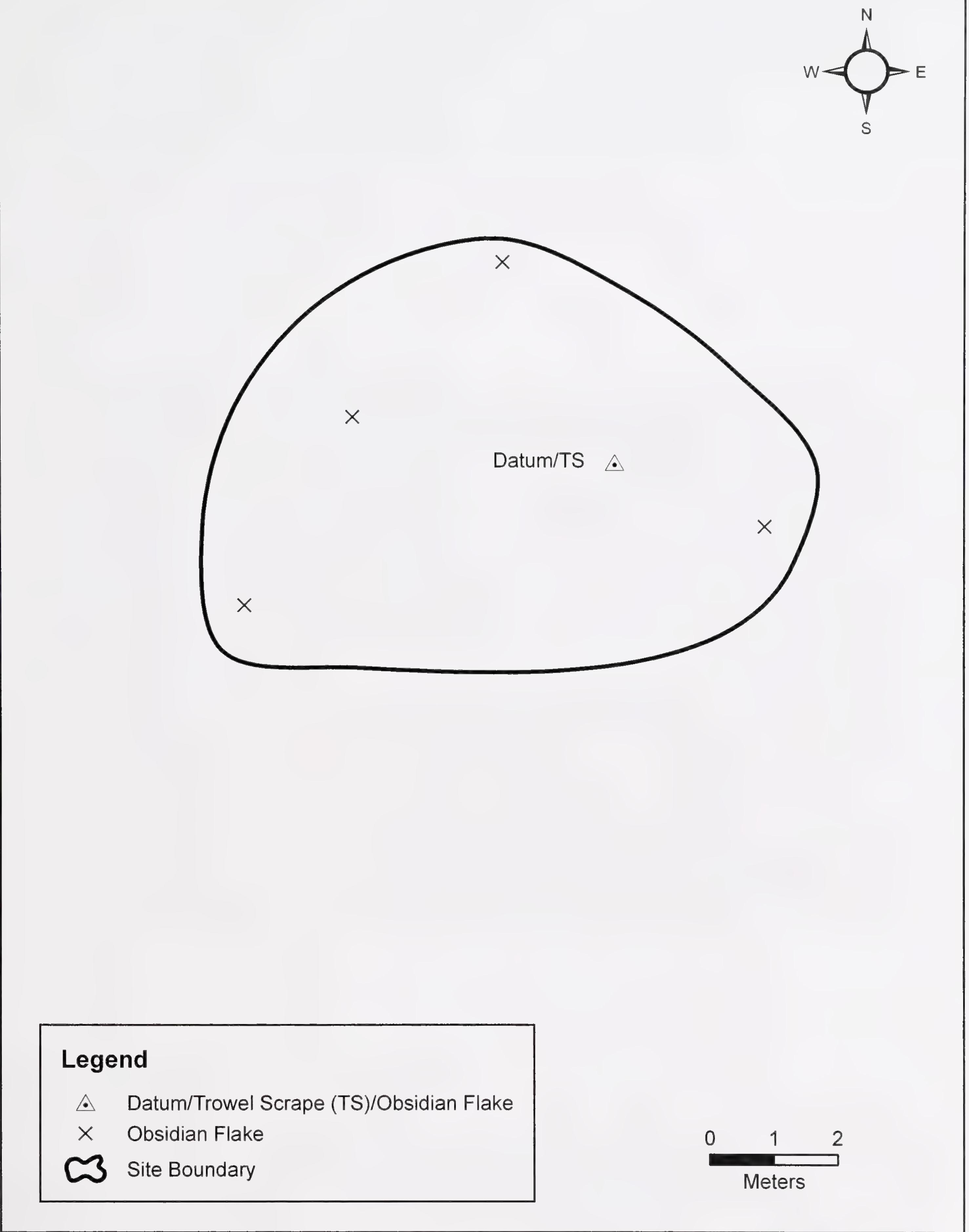


Site Sketch Map: Site No. 26Mn1656 (KEC-590-08)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-25-07

kautz
ENVIRONMENTAL CONSULTANTS, INC.

Photograph 1 (IMACS) Site 26Mn1656 (KEC-590-8). Site overview (300°). Kautz Environmental Consultants, Inc., 2007.

IMACS SITE FORM
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

Form approved for use by
BLM - Utah, Idaho, Wyoming, Nevada
Division of State History - Utah, Wyoming
USFS - Intermountain Region
NPS - Utah, Wyoming

*1. **State No.** 26Mn1657
*2. **Agency No.**
3. **Temp. No.** KEC-590-9

Part A - Administrative Data

4. **State:** Nevada **County:** Mineral

5. **Project:** Hawthorne Survey (KEC-590)

*6. **Report No.:**

7. **Site Name / Property Name:** None

8. **Class:** [ ] Prehistoric [X] Historic [ ] Paleontologic [ ] Ethnographic

9. **Site Type:** Historic refuse scatter

*10. **Elevation:** 4,132 ft.

*11. **UTM Grid** (NAD 1983) **Zone** 11 358329 **mE** 4267381 **mN** [Datum]

*12. SW¼ of the SE¼ of the NE¼ of Section 22, T.8N., R.30E.

*13. **Meridian:** Mt. Diablo (7)

*14. **Map Reference:** *Hawthorne East, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)

15. **Aerial Photo:** None

16. **Location and Access:** Head south on Highway 95 from Fallon, Nevada. Continue roughly 80 miles to Hawthorne, Nevada. Before entering Hawthorne proper, turn left onto Thorne Road. Follow this road approximately 1.5 miles, bordering the northern end of the Hawthorne Municipal Airport, then turn right (south) onto Bonanza Road, and travel 0.8 miles. The site is immediately on the west side of the road here.

*17. **Land Owner:** Municipal

*18. **Federal Administrative Units:** N/A

*19. **Location of Curated Materials:** N/A

20. **Site Description:** This site is a concentrated historic refuse scatter, located on a flat valley floor, immediately north of Hawthorne, and south of Walker Lake. The artifacts appear to represent a single dumping episode, and consist of tin cans, bottle glass, ceramics, and several household items, as well as three cooked animal bone fragments. The site datum is located in the approximate center of the site. A trowel scrape excavated in the southwest corner revealed silty gravelly sands. Several artifacts, including a cut nail and an egg separator, were observed in the trowel scrape between 0 and 5 cm below the surface. The cultural depth is shallow, and is most likely the result of windblown sediment covering portions of the dump.

*21. **Site Condition:** [ ] Excellent (A) [ ] Good (B) [X] Fair (C) [ ] Poor (D) [ ] Inundated (E) [ ] Destroyed (F)

*22. **Impact Agent(s):** Erosion (ER), Dumping

*23. **National Register Status:** [ ] Significant (C) [X] Non-Significant (D) [ ] Unevaluated (Z)

List of Attachments:
[ ] Part B
[X] Part C
[ ] Part E
[X] Topo Map
[X] Site Sketch
[X] Photos
[ ] Artifact/Feature Sketch
[ ] Continuation Sheets
[ ] Other:

*Encoded Data Items

Part A - Administrative Data

State No. 26Mn1657
Agency No.
Temp. No. KEC-590-9

Justify: This site appears to represent a single dumping episode, and dating to c. 1900-c. 1940. While this site is probably related to the towns of Babbitt and Hawthorne, and/or possibly U. S. Highway 95, all of which occur less than one mile distant, no specific historic event(s) can be assigned to this site. This site cannot be definitively associated with the life of an important historic figure(s), nor does it contain outstanding engineering features. This site is not identified on historic maps or indices of the area. Based on its lack of contextual information, its surficial nature, lack of associated features, and its relatively limited numbers and diversity of artifacts, this site does not have the potential to address historic research themes or associated questions developed for the region. Therefore, this site is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

24. Photos: KEC-590 Roll 3, Frames 16-20

25. Recorded by: R. Breitling,

***26. Survey Organization:** Kautz Environmental Consultants, Inc., Reno, Nevada (KF)

27. Assisting Crew Members: O. Lund, B. Rodela, R. Whalley ***28. Survey Date:** June 20, 2007

***29. Slope:** 0 (Degrees) **Aspect:** 0 (Degrees)

***30. Distance to Permanent Water:** 69 x 100 Meters to the NW

*Type of Water Source [ ] Spring/Seep (A) [ ] Stream/River (B) [X] Lake (C) [ ] Other (D)
Name of Water Source: Walker Lake

***31. Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)

32. Topographic Location** - ***See Guide for additional information

PRIMARY LANDFORM

[ ] Mountain spine (A)
[ ] Hill (B)
[ ] Tableland/Mesa (C)
[ ] Ridge (D)
[X] Valley (E)
[ ] Plain (F)
[ ] Canyon (G)
[ ] Island (H)
[ ] Alluvial fan (A)
[ ] Alcove/Rock Shelter (B)
[ ] Arroyo (C)
[ ] Basin (D)
[ ] Cave (E)
[ ] Cliff (F)
[ ] Delta (G)
[ ] Detached Monolith (H)

SECONDARY LANDFORM

[ ] Dune (I)
[X] Floodplain (J)
[ ] Ledge (K)
[ ] Mesa/Butte (L)
[ ] Playa (M)
[ ] Port. Geo. Feature (N)
[ ] Plain (O)
[ ] Ridge/Knoll (P)
[ ] Slope (Q)
[ ] Terrace/Bench (R)
[ ] Talus Slope (S)
[ ] Island (T)
[ ] Outcrop (U)
[ ] Spring Mound/Bog (V)
[ ] Valley (W)
[ ] Cutbank (X)
[ ] Riser (Y)
[ ] Multiple S. Landforms (1)
[ ] Bar (2)
[ ] Lagoon (3)
[ ] Ephemeral Wash (4)
[ ] Kipuka (5)
[ ] Saddle/Pass (6)
[ ] Graben (7)

Describe: The site is located on the flat valley floor, immediately north of Hawthorne and south of Walker Lake.

***33. On-site Depositional Context**

[ ] Fan (A)
[ ] Talus (B)
[ ] Dune (C)
[ ] Stream Terrace (D)
[ ] Playa (E)
[ ] Outcrop (Q)
[ ] Extinct Lake (F)
[ ] Extant Lake (G)
[ ] Alluvial Plain (H)
[ ] Colluvium (I)
[ ] Moraine (J)
[X] Flood Plain (K)
[ ] Marsh (L)
[ ] Landslide/Slump (M)
[ ] Delta (N)
[ ] Desert Pavement (P)
[ ] Stream Bed (R)
[ ] Aeolian (S)
[ ] None (T)
[ ] Residual (U)

Describe: The soil is a coarse sand. According to Blake (1991:332-333), this site appears to be located within the *Inmo-Inmo, Occasionally Flooded*, soil association. This soil type is located on alluvial fans at elevations of 4,100 to 5,200 ft., and is very gravelly loamy sand on 2-8 percent slopes.

***34. Vegetation**

***a. Life Zone** [ ] Arctic-Alpine (A) [ ] Hudsonian (B) [ ] Canadian (C) [ ] Transitional (D) [X] Upper Sonoran (E) [ ] Lower Sonoran (F)

***b. Community:** **Primary On-Site** (O) **Secondary On-Site** (O) **Surrounding Site** (O)

Aspen (A)
Spruce-Fir (B)
Douglas Fir (C)
Alpine Tundra (D)
Ponderosa Pine (E)
Lodgepole Pine (F)
Other/Mixed Conifer (G)
Pinyon-Juniper Woodland (H)
Wet Meadow (I)
Dry Meadow (J)
Oak-Maple Shrub (K)
Riparian (L)
Grassland/Steppe (M)
Desert Lake Shore (N)
Shadscale Community (O)
Tall Sagebrush (P)
Low Sagebrush (Q)
Barren (R)
Marsh/Swamp (S)
Lake/Reservoir (T)
Agriculture (U)
Blackbrush (V)
Creosote Bush (Y)
Juniper-Sage (2)

Part A - Administrative Data

State No. 26Mn1657
Agency No.
Temp. No. KEC-590-9

Describe: This site is located in a shadscale community.

*35. **Miscellaneous Text:**

References:

Blake, E. W. 1991. *Soil Survey of Mineral County Area, Nevada.* USDA Soil Conservation Service, Washington, D.C.

36. **Comments/Continuations:**

Part C - Historic Sites

State No. 26Mn1657
Agency No.
Temp. No. KEC-590-9

1. **Site Type:** Historic refuse scatter

*2. **Historic Theme(s):** None (A)

		CULTURAL AFFILIATION	**DATING METHOD**
*3.	**Culture:**	European/American (EA)	Cross-Dating/Diag. Artifacts (F)

Describe: The artifacts identified in this dump are European-American and are most likely related to either Babbitt or Hawthorne.

*4. **Oldest Date:** c. 1900 **Recent Date:** c. 1940

How Determined? Tin can and glass manufacturing technologies.

5. **Site Dimensions:** 18 m (N/S) x 9 m (E/W) ***Area:** 114 sq. m

*6. **Surface Collection Method**
[X] None (A)
[ ] Grab Sample (B)
[ ] Designed Sample (C)
[ ] Complete Collection (D)

Sampling Method: N/A

*7. **Estimated Depth of Cultural Fill**
[ ] Surface (A)
[ ] 0 - 20 cm (B)
[ ] 20 - 100 cm (C)
[ ] 100 cm + (D)
[X] Fill noted but unknown (E)
[ ] Depth Suspected, but not tested (F)

How Estimated: *(If tested, show location on site map)* A few artifacts were noted to 5 cm below the surface. This site is located in a sandy areas, and burial is most likely the result of blowing sediments.

*8. **Excavation Status** [ ] Excavated (A) [ ] Tested (B) [X] Unexcavated (C)

Testing Method: N/A

*9. **Summary of Artifacts and Debris** *(Refer to Guide for additional categories)*

[X] Glass (GL)
[ ] Metal (ME)
[ ] Nails (NC, NW)
[ ] Stove Parts (SP)
[ ] Insulators (IN)
[X] Bone (BO)
[X] Ceramics (CS)
[ ] Fabric (FA)
[ ] Mining/Milling Machinery(MN)
[ ] Building Hardware (BH)
[ ] Leather (LE)
[ ] Wire (WI)
[X] Tin Cans
[ ] Mining Tools (MT)
[ ] Tar Paper (TP)
[ ] Ammunition (AM)
[ ] Wood (WD)
[ ] Rubber (RB)
[ ] Shoes (SO)
[ ] Tobacco Tins (TO)
[X] Domestic Items (DI)
[ ] Kitchen Utensils (KU)
[ ] Car/Car Parts (CR)
[ ] Brick (BR)
[ ] Clock Parts (CT)

Describe: This site is a small, dense historic refuse dump, with five tin cans (hole-in-cap, external friction, and unknown); 48 glass fragments (aqua, amethyst, amber), representing at least five bottles; two white improved earthenware sherds; three cooked animal bones, possibly pig; and household items. The household items include an egg separator and half of a garden rake head. A cut nail and a wire nail also occur. A complete inventory of observed artifacts was done. The maximum density of artifacts in the scatter is 40/sq. m.

10. **Ceramic Artifacts:**

#	**PASTE**	**GLAZE/SLIP**	**DECORATION**	**PATTERN**	**VESSEL FORM(S)**
2	Fine/white	Clear/white	None	N/A	Unknown

a. **Estimated Number of Ceramic Trademarks:** None

Describe: Two white improved earthenware plate rim sherds; no pattern or identifying marks are evident.

11. **Glass:**

#	**MANUFACTURE**	**COLOR**	**FUNCTION**	**TRADEMARKS**	**DECORATION**
2	Mold blown	Aqua	Bottle	Base: "...E IN /...S.A."	None
4	Mold blown	Amethyst	Bottle	None	None
2	ABM	Amber	Bottle	None	None
40	Mold blown	Amber	Bottle	None	None

Describe: [*Note:* The term mold blown is used to indicate that the bottle glass was blown into a mold for shape by either mouth or machine. ABM refers to automatic bottle machine, which is used here to represent both ABM and Semi-ABM if there is no available information to indicate that the

Part C - Historic Sites

State No. 26Mn1657
Agency No.
Temp. No. KEC-590-9

Miller, G. L., and T. McNichol. 2002. *Dates for Suction Scarred Bottoms: Chronological Changes in Owens Machine-made Bottles.* Paper presented at the 2002 Society for Historical Archaeology meeting, Mobile, Alabama.

Miller, G. L., and A. Pacey. 1985. Impact of Mechanization in the Glass Container Industry: The Dominion Glass Company of Montreal, a Case Study. *Historical Archaeology* 19(1):38-50.

Munsey, C. 1970. *The Illustrated Guide to Collecting Bottles.* Hawthorn Books, Publishers, New York.

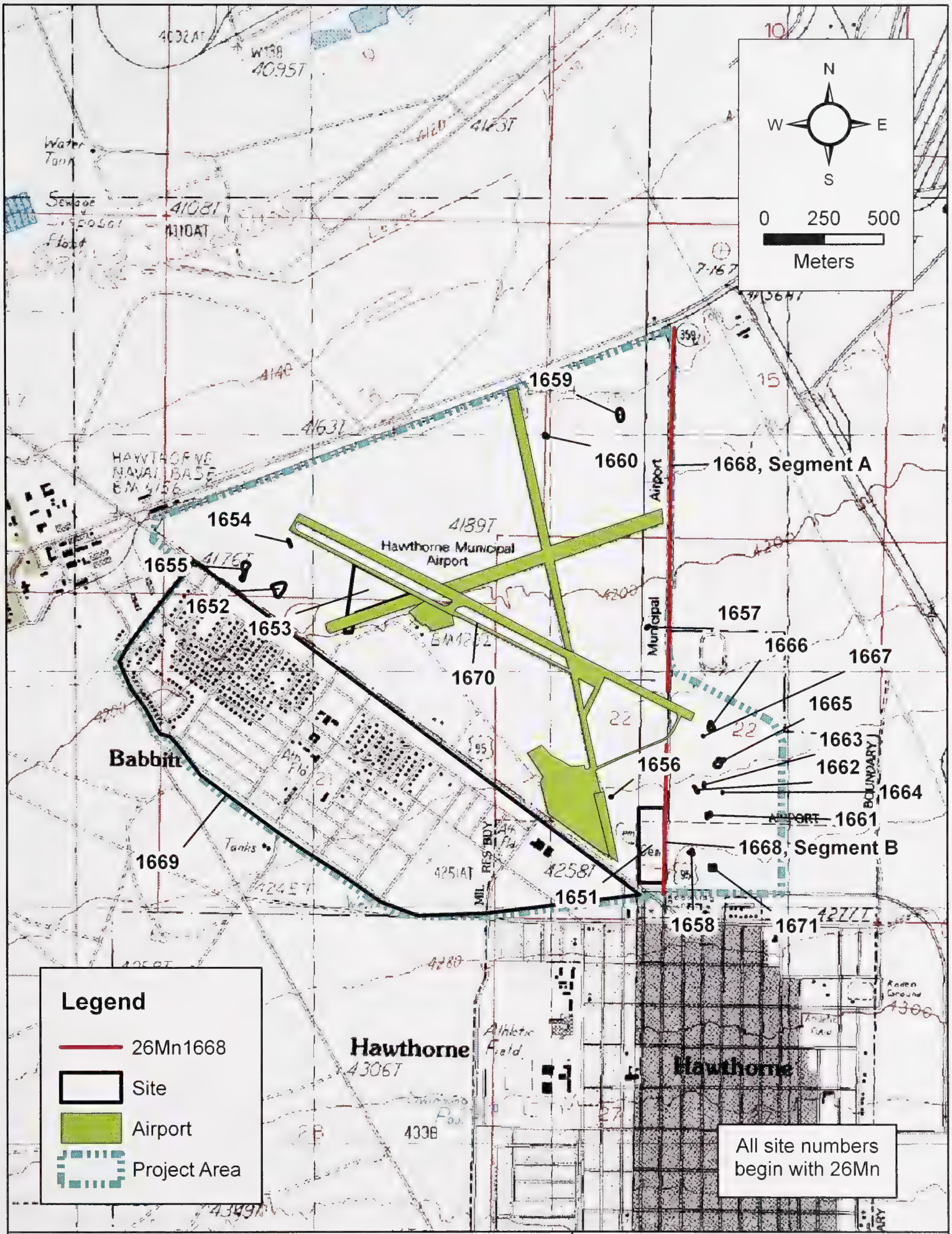
Newman, T. S. 1970. A Dating Key For Post-Eighteenth Century Bottles. *Historical Archaeology* 4:70-75.

Rock, J. T. 1984. Cans in the Countryside. *Historical Archaeology* 18(2):97-111.

1987. *A Brief Commentary on Cans.* Ms. on file, USDA Forest Service, Klamath National Forest, Yreka, California.

1989. *Tin Canisters: Their Identification.* Ms. on file, USDA Forest Service, Klamath National Forest, Yreka, California.

Simonis, D. 1997. *Simonis Can Guide.* USDI Bureau of Land Management, Kingman Field Office, Kingman, Arizona.



Site Location Map: Site No. 26Mn1657 (KEC-590-9)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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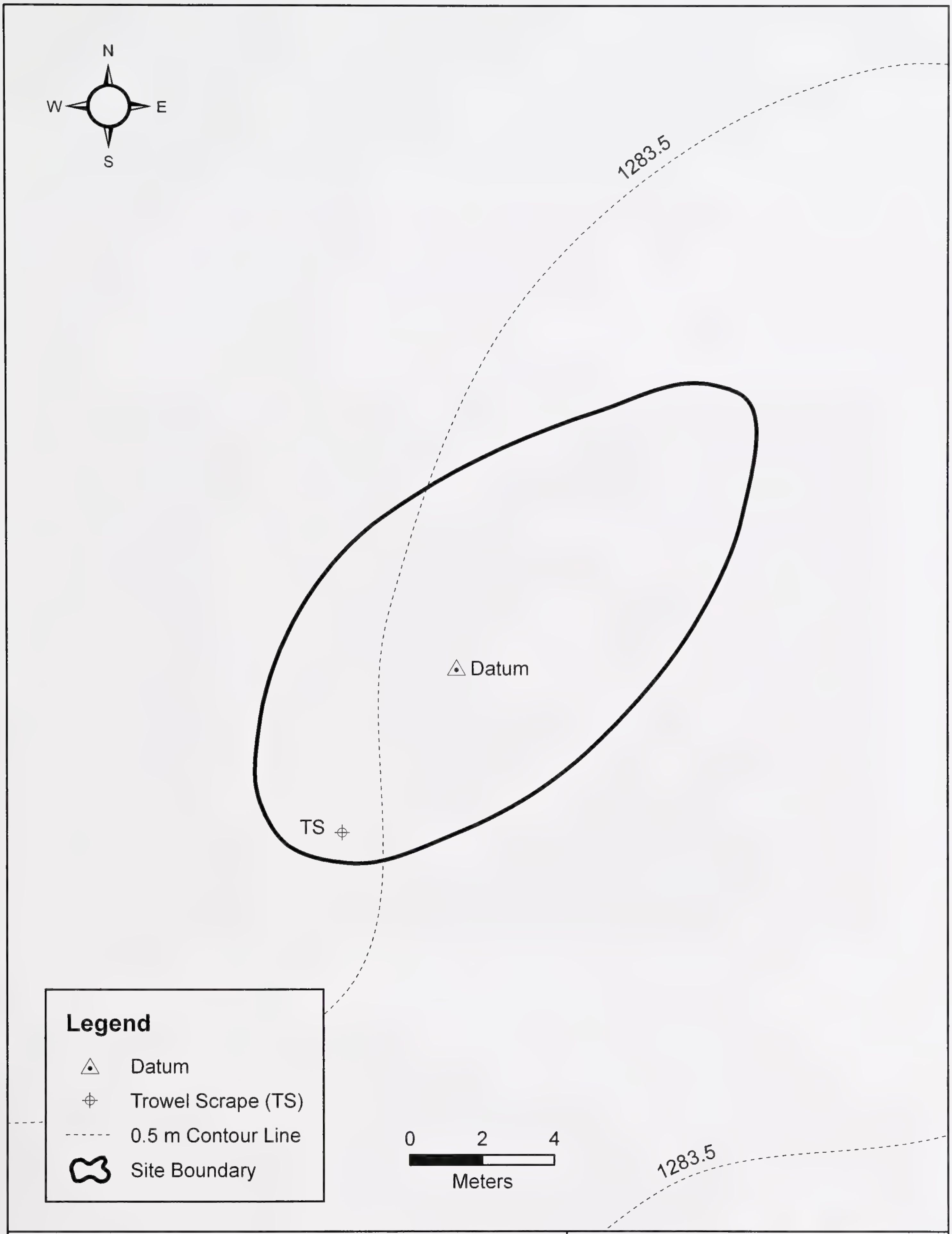

Site Sketch Map: Site No. 26Mn1657 (KEC-590-09)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-25-07

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Photograph 1 (IMACS) Site 26Mn1657 (KEC-590-9). Site overview (25°). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated _ Not eligible X Eligible _ Criteria: A _ B _ C _ D _ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

*1. **State Site No.:** 26Mn1658 *2. **Agency Site No.:** 3. **Temp Site No.:** KEC-590-10
4. **Project Name:** Hawthorne Survey (KEC-590) 5. **NSM Report Number:**
*6. **Agency Report Number:** **County:** Mineral
7. **Site/Property Name:** None
8. **Site Class:** Prehistoric X Historic X **Historic Theme/Affiliation:** None (A); Unknown Aboriginal (Z)/European-American (EA)
Site Area: 22 m N/S x 23 m E/W (Area: 276 sq. m) **Age:** Unknown (Z); 1881-c. 1920s
Dating Method: None (A); Cross-Dating/Diag. Artifacts (F); Historical Record (I) **Depth of Cultural Fill:** Surface (A)

9. **Site Description:** This site is a small, multi-component site, located on a flat valley floor between Hawthorne and Walker Lake. The prehistoric component is a diffuse lithic scatter, with two flakes. These include one obsidian core reduction flakes, and one obsidian biface thinning flake. No other prehistoric artifacts, temporally diagnostic artifacts, or features were observed. The historic component consists of an amethyst bottle glass fragment, an olive green bottle glass fragment, and a square nail. The glass has not been flaked, and the prehistoric and historic components probably are not associated. No other prehistoric or historic artifacts or features were observed. The datum is located in the southwest portion of the site, between the obsidian flakes. A trowel scrape excavated at the datum revealed sandy deposits. No subsurface cultural materials were noted, and the potential for buried cultural material on the site is low.

National Register Significance: This site contains two small components, one historic and one prehistoric, that do not appear to be related. The site's prehistoric component is a small lithic scatter. This prehistoric component is not characterized by an abundance or diversity of prehistoric lithic artifacts; does not contain temporally diagnostic artifacts, has no prehistoric features, and appears entirely confined to the surface. Consequently, it does not contain data addressing the prehistoric research themes and associated questions developed for the region. Therefore, this prehistoric component is recommended as not significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, d).

While the historic component probably is related to the former town of Babbitt, no specific theme or significant event(s) can be assigned to it. The historic component cannot be definitively associated with the life of an important historic figure, nor does it contain outstanding engineering features. This component also is not identified on historic maps or indices of the area. Based on its lack of contextual information, this historic component does not have the potential to address historic research themes and associated questions posed for the region. Therefore, this historic component is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of the four criteria (a, b, c, or d).

*10. **Elevation:** 4,182 ft. *11. **UTM Grid Zone (NAD 1983):** Zone 11 358508 **mE** 4266425 **mN** [Datum]
*12. **Township/Range** (To quarter section only): SE¼ of Section 22, T.8N., R.30E.
*13. **Meridian:** Mt. Diablo (7)
*14. **Map Reference:** *Hawthorne East, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
*15. **Land Owner:** Municipal *16. **Federal Administrative Unit:** N/A
*17. **Distance to Permanent Water:** 77 x 100 m NW, Walker Lake **Type:** (A) spring _ (B) stream/river_ (C) lake X (D) other_
*18. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
*19. **Topographic Location/Primary Landform:** Valley (E) *20. **Depositional Context:** Flood Plain (K)
*21. **Vegetation Community** (primary only): Shadscale community (O)
22. **Photographs** (Roll & Frame Nos.): KEC-590 Roll 2, Frames 22, 23
23. **Recorded by:** N. Rhyne **Date:** June 20, 2007
*24. **Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Artifact Summary: Note: The measurements of the tin cans follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2-6/16 in. x 3-5/16 in. x 1-4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical. Measurements for flaked stone tools and ground stone items are in centimeters (length x width x thickness). Measurements noted in () indicate that it is incomplete (broken).

Count/density	Material	Artifact/code	Comments
2	Obsidian	Debitage (LS)	Two flakes, black semi-translucent obsidian: Primary core reduction, heavily weathered; Secondary biface thinning.
1	Glass	Bottle (Z)	An amethyst fragment; amethyst color the result of using manganese dioxide as a decolorizing agent, c. 1880s to c. 1920s (IMACS 1992:472.7; Miller and Pacey 1985:19(1)44-45; Lockhart 2006:40(2)50-54)
1	Glass	Bottle (Z)	An olive green fragment.

State Site No.: 26Mn1658 **Agency Site No.:** **Temp Site No.:** KEC-590-10

Count/density	Material	Artifact/code	Comments
1	Metal	Nails - cut (NC)	**Metal 1**: Cut nail, 2⅝ inches long, possibly an 8d, used for wall/floor board, frame structure, ceiling or rafter (Jurney 1987). Cut nails were dominant until the 1890s-1900s, but continue to be used in flooring (IMACS 1992:470.2-4

Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)

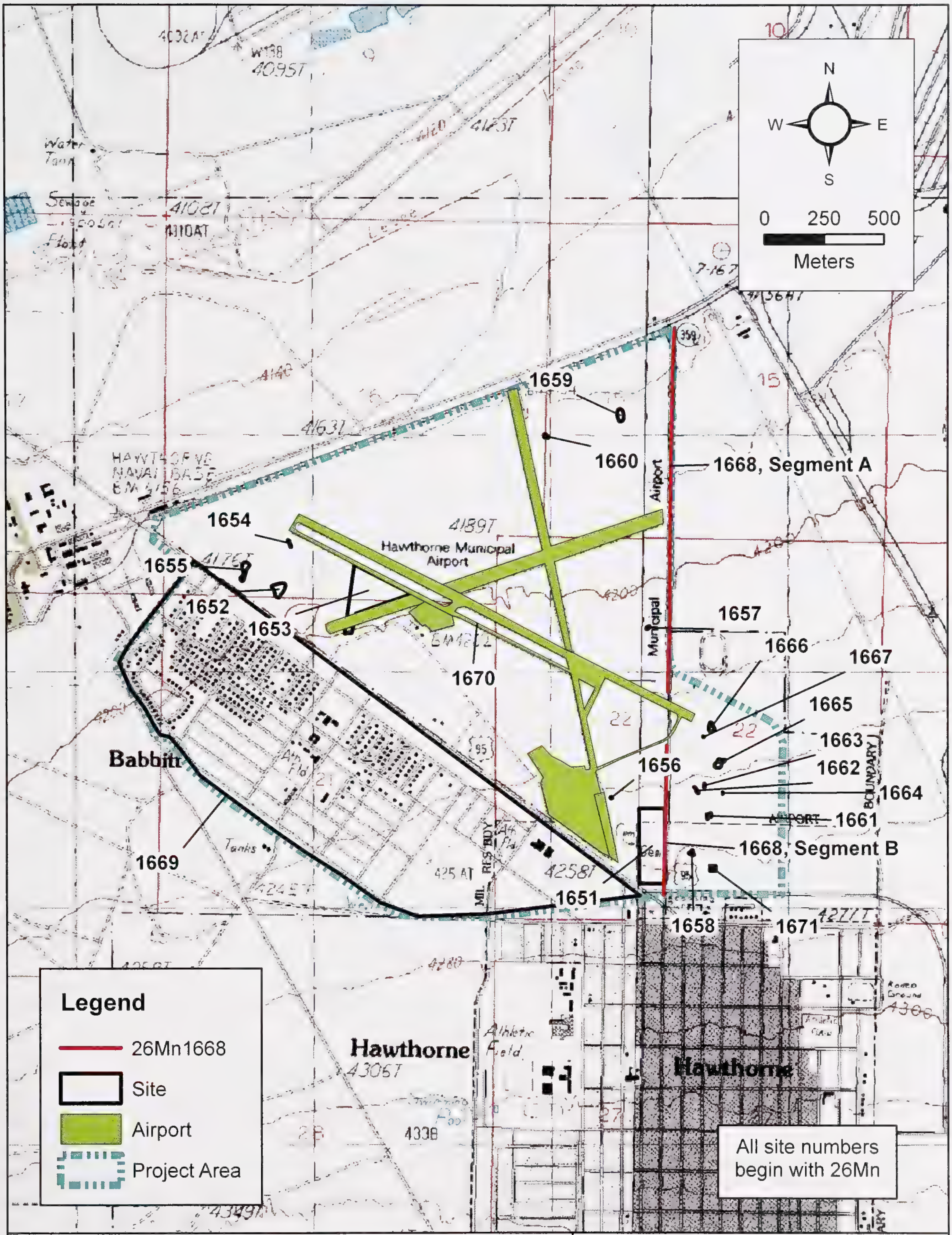
References:

Intermountain Antiquities Computer System (IMACS). 1992. *User's Guide: Instructions and Computer Codes for Use with the IMACS Site Form.* Revised. University of Utah, Bureau of Land Management, and the U.S. Forest Service.

Jurney, D. H. 1987. Cut and Wire Nails: Functional and Temporal Interpretations. In *Historic Buildings, Material Culture, and People of the Prairie Margin*, edited by D. H. Jurney and R. W. Moir, pp. 83-96. Richland Creek Technical Series, vol. 5. Archaeology Research Program, Institute for the Study of Earth and Man, Southern Methodist University, Dallas, Texas.

Lockhart, B. 2006. The Color Purple: Dating Solarized Amethyst Container Glass. *Historical Archaeology* 40(2):45-56.

Miller, G. L., and A. Pacey. 1985. Impact of Mechanization in the Glass Container Industry: The Dominion Glass Company of Montreal, a Case Study. *Historical Archaeology* 19(1):38-50.



Site Location Map: Site No. 26Mn1658 (KEC-590-10)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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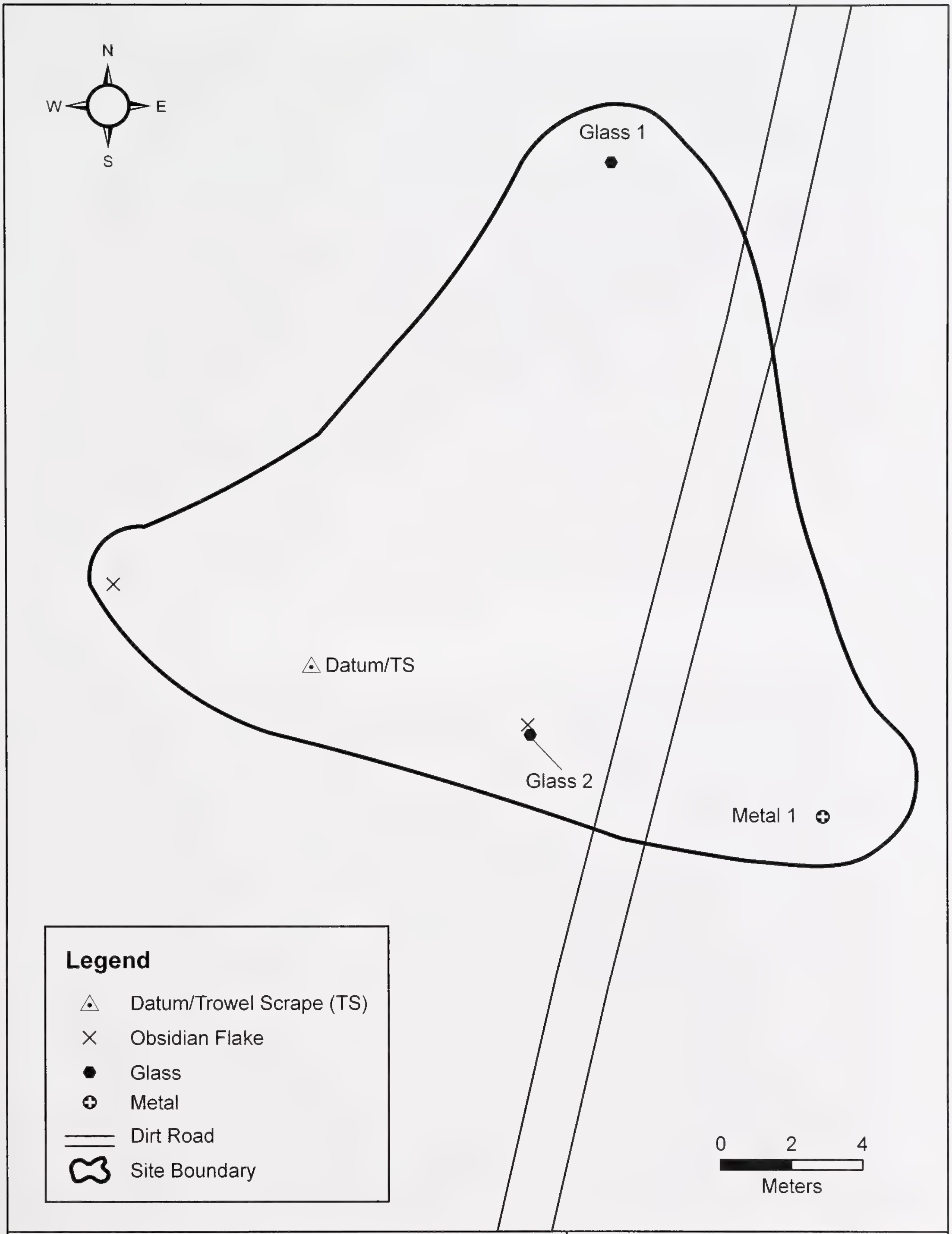

Site Sketch Map: Site No. 26Mn1658 (KEC-590-10)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-25-07

kautz
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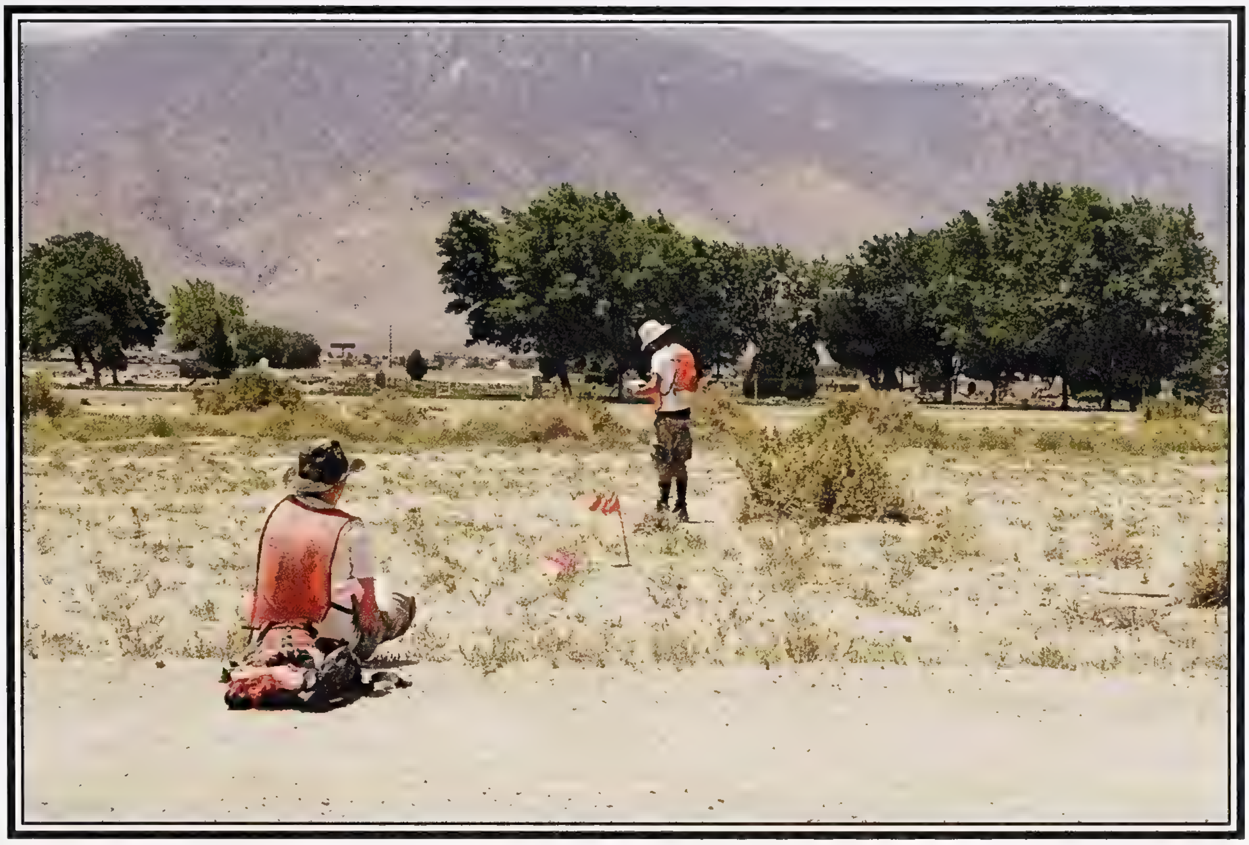
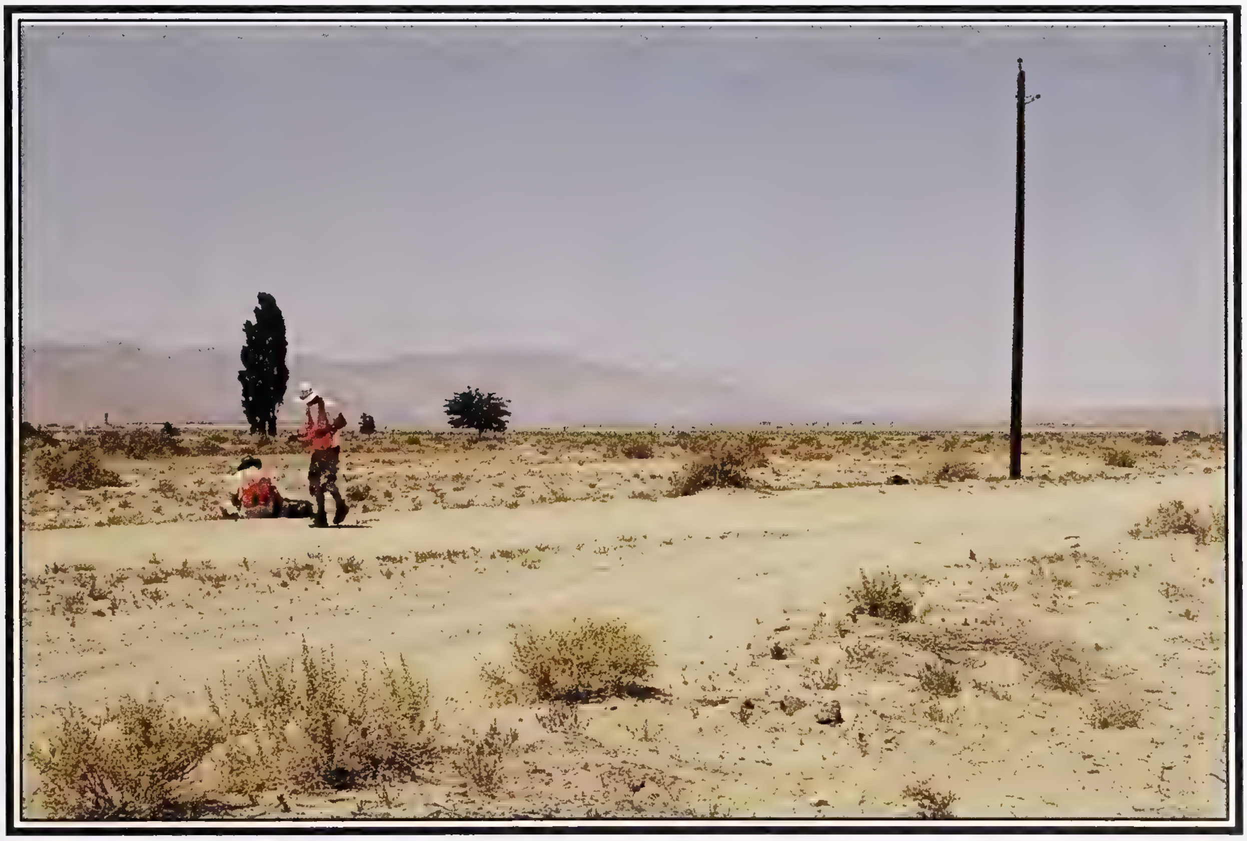


Photograph 1 (IMACS) Site 26Mn1658 (KEC-590-10). Site overview (prehistoric component) (270°). Kautz Environmental Consultants, Inc., 2007.



Photograph 2 (IMACS) Site 26Mn1658 (KEC-590-10). Site overview (historic component) (340°). Kautz Environmental Consultants, Inc., 2007.

IMACS SITE FORM
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

***1. State No.** 26Mn1659
***2. Agency No.**
3. Temp. No. KEC-590-11

Form approved for use by
BLM - Utah, Idaho, Wyoming, Nevada
Division of State History - Utah, Wyoming
USFS - Intermountain Region
NPS - Utah, Wyoming

Part A - Administrative Data

4. **State:** Nevada **County:** Mineral

5. **Project:** Hawthorne Survey (KEC-590)

*6. **Report No.:**

7. **Site Name / Property Name:** None

8. **Class:** [ ] Prehistoric [X] Historic [ ] Paleontologic [ ] Ethnographic

9. **Site Type:** Historic refuse scatter

*10. **Elevation:** 4,083 ft.

*11. **UTM Grid** (NAD 1983) **Zone** 11 358220 **mE** 4268282 **mN** [Datum]

*12. SE¼ of the NW¼ of the SW¼ of Section 22, T.8N., R.30E.

*13. **Meridian:** Mt. Diablo (7)

*14. **Map Reference:** *Hawthorne West, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)

15. **Aerial Photo:** None

16. **Location and Access:** Head south on Highway 95 from Fallon, Nevada. Continue roughly 80 miles to Hawthorne, Nevada. Before entering Hawthorne proper, turn left onto Thorne Road. Follow this road approximately 1.5 miles, bordering the northern end of the Hawthorne Municipal Airport, then turn right (south) onto Bonanza Road, and travel 0.2 miles. The site is due west of the road 200 meters.

*17. **Land Owner:** Municipal

*18. **Federal Administrative Units:** N/A

*19. **Location of Curated Materials:** N/A

20. **Site Description:** This site is a concentrated scatter of historic refuse, located on a flat valley floor between Walker Lake and the town of Hawthorne. It is dominated by thousands of wood fragments, possibly plywood, as well as historic artifacts. Artifacts include tin cans, keg hoops, household items, glass, and clothing materials, and modern aluminum cans and aluminum-topped pull tab beverage cans. It is not clear whether or not the wood and other materials were dumped here, or if they represent building remains. The site datum is in the approximate site center. A trowel scrape revealed silty gravelly sands to 10 cmbs. Given the lack of subsurface cultural materials in the trowel scrape, the site does not have a high potential for buried cultural material.

*21. **Site Condition:** [ ] Excellent (A) [ ] Good (B) [X] Fair (C) [ ] Poor (D) [ ] Inundated (E) [ ] Destroyed (F)

*22. **Impact Agent(s):** Erosion (ER), Dumping

*23. **National Register Status:** [ ] Significant (C) [X] Non-Significant (D) [ ] Unevaluated (Z)

List of Attachments:

List of Attachments:	[ ] Part B [X] Part C [ ] Part E	[X] Topo Map [X] Site Sketch	[X] Photos [ ] Artifact/Feature Sketch	[ ] Continuation Sheets [ ] Other:

*Encoded Data Items

BLM 8100-1
FS R-4 2300-2
3/90

Part A - Administrative Data

State No. 26Mn1659
Agency No.
Temp. No. KEC-590-11

Justify: This site appears to represent dumping or possibly structural remains dating from c. 1940s to c. 1980s. While this site is probably related to the towns of Babbitt and Hawthorne, and/or possibly U. S. Highway 95, all of which occur less than one mile distant, no specific historic event(s) can be assigned to this site. This site cannot be definitively associated with the life of an important historic figure(s), nor does it contain outstanding engineering features. This site is not identified on historic maps or indices of the area. Based on its lack of contextual information, its surficial nature, lack of associated features, and its relatively limited numbers and diversity of artifacts, this site does not have the potential to address historic research themes or associated questions developed for the region. Therefore, this site is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

24. **Photos:** KEC-590 Roll 3, Frame3 22-26

25. **Recorded by:** R. Breitling,

*26. **Survey Organization:** Kautz Environmental Consultants, Inc., Reno, Nevada (KF)

27. **Assisting Crew Members:** O. Lund, B. Rodela, R. Whalley *28. **Survey Date:** June 20, 2007

*29. **Slope:** 0 (Degrees) **Aspect:** 0 (Degrees)

*30. **Distance to Permanent Water:** 63 x 100 Meters to the NW

*Type of Water Source [ ] Spring/Seep (A) [ ] Stream/River (B) [X] Lake (C) [ ] Other (D)
Name of Water Source: Walker Lake

*31. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)

*32. **Topographic Location** - ***See Guide for additional information***

PRIMARY LANDFORM

[ ] Mountain spine (A)
[ ] Hill (B)
[ ] Tableland/Mesa (C)
[ ] Ridge (D)
[X] Valley (E)
[ ] Plain (F)
[ ] Canyon (G)
[ ] Island (H)

[ ] Alluvial fan (A)
[ ] Alcove/Rock Shelter (B)
[ ] Arroyo (C)
[ ] Basin (D)
[ ] Cave (E)
[ ] Cliff (F)
[ ] Delta (G)
[ ] Detached Monolith (H)

SECONDARY LANDFORM

[ ] Dune (I)
[X] Floodplain (J)
[ ] Ledge (K)
[ ] Mesa/Butte (L)
[ ] Playa (M)
[ ] Port. Geo. Feature (N)
[ ] Plain (O)
[ ] Ridge/Knoll (P)

[ ] Slope (Q)
[ ] Terrace/Bench (R)
[ ] Talus Slope (S)
[ ] Island (T)
[ ] Outcrop (U)
[ ] Spring Mound/Bog (V)
[ ] Valley (W)
[ ] Cutbank (X)

[ ] Riser (Y)
[ ] Multiple S. Landforms (1)
[ ] Bar (2)
[ ] Lagoon (3)
[ ] Ephemeral Wash (4)
[ ] Kipuka (5)
[ ] Saddle/Pass (6)
[ ] Graben (7)

Describe: The site is located on the flat valley floor, immediately north of Hawthorne, and south of Walker Lake.

*33. **On-site Depositional Context**

[ ] Fan (A)
[ ] Talus (B)
[ ] Dune (C)
[ ] Stream Terrace (D)
[ ] Playa (E)

[ ] Outcrop (Q)
[ ] Extinct Lake (F)
[ ] Extant Lake (G)
[ ] Alluvial Plain (H)
[ ] Colluvium (I)

[ ] Moraine (J)
[X] Flood Plain (K)
[ ] Marsh (L)
[ ] Landslide/Slump (M)
[ ] Delta (N)

[ ] Desert Pavement (P)
[ ] Stream Bed (R)
[ ] Aeolian (S)
[ ] None (T)
[ ] Residual (U)

Describe: The soil is a coarse sand. According to Blake (1991:332-333), this site appears to be located within the *Inmo-Inmo, Occasionally Flooded* soil association. This soil type is located on alluvial fans at elevations of 4,100 to 5,200 ft. and is very gravelly loamy sand on 2-8 percent slopes.

*34. **Vegetation**

*a. **Life Zone** [ ] Arctic-Alpine (A) [ ] Hudsonian (B) [ ] Canadian (C) [ ] Transitional (D) [X] Upper Sonoran (E) [ ] Lower Sonoran (F)

*b. **Community:** **Primary On-Site** (O) **Secondary On-Site** (O) **Surrounding Site** (O)

Aspen (A)
Spruce-Fir (B)
Douglas Fir (C)
Alpine Tundra (D)
Ponderosa Pine (E)
Lodgepole Pine (F)

Other/Mixed Conifer (G)
Pinyon-Juniper Woodland (H)
Wet Meadow (I)
Dry Meadow (J)
Oak-Maple Shrub (K)
Riparian (L)

Grassland/Steppe (M)
Desert Lake Shore (N)
Shadscale Community (O)
Tall Sagebrush (P)
Low Sagebrush (Q)
Barren (R)

Marsh/Swamp (S)
Lake/Reservoir (T)
Agriculture (U)
Blackbrush (V)
Creosote Bush (Y)
Juniper-Sage (2)

Part A - Administrative Data

State No. 26Mn1659
Agency No.
Temp. No. KEC-590-11

Describe: This site is located in a shadscale community.

***35. Miscellaneous Text:**

References:

Blake, E. W. 1991. *Soil Survey of Mineral County Area, Nevada*. USDA Soil Conservation Service, Washington, D.C.

36. Comments/Continuations:

Part C - Historic Sites

State No. 26Mn1659
Agency No.
Temp. No. KEC-590-11

1. **Site Type:** Historic refuse scatter

*2. **Historic Theme(s):** None (A)

	CULTURAL AFFILIATION	DATING METHOD
*3. **Culture:**	European/American (EA)	Cross-Dating/Diag. Artifacts (F)

Describe: The artifacts identified in this dump are European-American, and are most likely related to either Babbitt or Hawthorne.

*4. **Oldest Date:** c. 1940s **Recent Date:** c. 1980s

How Determined? Tin can manufacturing technologies, glass makers' marks

5. **Site Dimensions:** 52 m (N/S) x 27 m (E/W) ***Area:** 1,155 sq. m

*6. **Surface Collection Method** [X] None (A) [ ] Grab Sample (B) [ ] Designed Sample (C) [ ] Complete Collection (D)

Sampling Method: N/A

*7. **Estimated Depth of Cultural Fill** [X] Surface (A) [ ] 0 - 20 cm (B) [ ] 20 - 100 cm (C) [ ] 100 cm + (D) [ ] Fill noted but unknown (E) [ ] Depth Suspected, but not tested (F)

How Estimated: *(If tested, show location on site map)* Since no subsurface cultural materials were present in a 10 cm deep trowel scrape, this site does not display the potential for meaningful cultural depth.

*8. **Excavation Status** [ ] Excavated (A) [ ] Tested (B) [X] Unexcavated (C)

Testing Method: N/A

*9. **Summary of Artifacts and Debris** *(Refer to Guide for additional categories)*

[X] Glass (GL)
[ ] Metal (ME)
[ ] Nails (NC, NW)
[ ] Stove Parts (SP)
[ ] Insulators (IN)
[ ] Bone (BO)
[ ] Ceramics (CS)
[ ] Fabric (FA)
[ ] Mining/Milling Machinery(MN)
[ ] Building Hardware (BH)
[ ] Leather (LE)
[ ] Wire (WI)
[X] Tin Cans
[ ] Mining Tools (MT)
[ ] Tar Paper (TP)
[ ] Ammunition (AM)
[ ] Wood (WD)
[ ] Rubber (RB)
[ ] Shoes (SO)
[ ] Tobacco Tins (TO)
[ ] Domestic Items (DI)
[ ] Kitchen Utensils (KU)
[ ] Car/Car Parts (CR)
[ ] Brick (BR)
[ ] Clock Parts (CT)

Describe: This site is a medium-sized, very dense historic refuse scatter, dominated by wood fragments, and also including glass, tin cans, and household/domestic items, with some modern aluminum cans mixed in. The wood is fragmentary, and numbers in the thousands. The tin cans (n=9) include sanitary, vent hole, upright pocket, multiple friction, and fish tins. An aqua glass 5-gallon water bottle was noted, as well as 13 metal barrel hoops. The hoops are 1 inch (in.) wide x 12 in. diameter. Other items include a shell button, a metal buckle, a white opaque rectangular glass tray, and a muffin tin. The shell button, which appears to be freshwater shell, is a 2-hole sew-thru with a fisheye is ⅞ in. in diameter (36 lignes), which probably came from a vest, coat, or jacket. Freshwater shell buttons have a peak period of use between 1888 and 1930 (Pool 1991:6-7, 10-11). The buckle measures 1¾ in. x 1¼ in. It could be from a belt or horse tack. The muffin tin has six cups, and measures 10 in. x 6¾ in.

10. **Ceramic Artifacts:**

#	PASTE	GLAZE/SLIP	DECORATION	PATTERN	VESSEL FORM(S)

a. **Estimated Number of Ceramic Trademarks:** None

Describe: None observed.

11. **Glass:**

	#	MANUFACTURE	COLOR	FUNCTION	TRADEMARKS	DECORATION
Glass 1	1	ABM	Aqua	Water jug	Base: "CRYSTAL SPRING / ICE CO./ RENO NEVADA"	None
	1	Unknown	White opaque	Pos. tray	No	None

Part C - Historic Sites

State No. 26Mn1659
Agency No. ______
Temp. No. KEC-590-11

Describe: [*Note:* The term mold blown is used to indicate that the bottle glass was blown into a mold for shape by either mouth or machine. ABM refers to automatic bottle machine, which is used here to represent both ABM and Semi-ABM if there is no available information to indicate that the bottle was made by a semi-automatic bottle machine.] An aqua glass five-gallon water bottle, from the Crystal Springs Ice Company in Reno, Nevada, was identified. The Crystal Spring Company has been in business since 1929, but only started delivering water in glass jugs after World War II, c. 1945 (Crystal Springs Water Company 2007). Plastic 5-gallon containers for water replaced glass in the early 1980s (M. E. Kimball, personal communication 2007). The white opaque tray has vertical ridges evenly-spaced in the interior, and rounded edges and corners to fit into a larger container, possibly the top of the crisper from an older model refrigerator. It measures 13½ in. x 10⅞ in.

12. **Maximum Density - #/sq. m (glass and ceramics):** 1/sq. m

13. **Tin Cans:** [*Note:* The measurements follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.]

#	TYPE	OPENING	SIZE	MODIFIED	LABEL/MARK	FUNCTION
1	Cylindrical	Key-wind side strip/ removable lid	300 x 214	No	None	Unknown
2	Sanitary	Unknown; church key	210 x 300; 302 x 507	No	None	Food, juice?
1	Multiple friction	Removable lid	310 x 600	No	None	Unknown
2	Flat oblong	Unknown; key-wind top strip	400 x 015 x 303; 607 x 108 x 403	No	None	Fish/meat
2	Upright pocket	External friction/ tab hinge	300 x 406 x (015)	No	None	Tobacco
1	Vent hole	Unknown	215 x 400	No	None	Pos. milk

Describe: A total of nine tin cans was identified on the site. This is a complete inventory of tin cans observed. The cylindrical can has an internal rolled seam and crimped ends. Cylindrical cans opened by key-wind side strip with the above seam and ends probably have a beginning date range between c. 1901 and 1904. This type of coffee can was used into the 1960s (Pulati 1973:52-53; Rock 1989:81-95), but other products, such as nuts, continued to be in cans with strip openings at least into the 1970s, and possibly the 1980s. Sanitary cans were introduced in c. 1904 and continue to be used. The church-key opener was introduced in 1935, primarily for use on all-steel flat-top beverage can (Martells 1976:43, 45; Rock 1989:194). Multiple friction cans appeared in c. 1906 (Rock 1989:122-123), and are commonly used for paints and stains. These flat oblong tins are two-piece drawn. One has a key-wind top strip opening, dating from 1919 to the present (Rock 1989:140). The upright pocket tobacco tins both have strike plates and date from c. 1901 to c. 1972 (Cleeland 1984:22; Rock 1989:150-152). The vent hole can post-dates 1931, based on its measurements (Bitting 1937:751; Simonis 1997). The size fits into the range determined by Bowyer (2002:113-114) for the No. 1B vent hole can used for evaporated milk. These were used until c. 1985 (Edwards et al. 1990:100-101).

*14. **Landscape and Constructed Features (locate on site map)** - *(See Guide for additional categories)*

[ ] Trail/Road (TR)
[ ] Tailings (MT, ML)
[ ] Rock Alignment (RA)
[ ] Cairn (AI)
[ ] Dump (DU)
[ ] Depression (DE)
[ ] Cemetery/Burial (CB)
[ ] Prospect Hole (PH)
[ ] Dam, Earthen (DA)
[ ] Ditch (DI)
[ ] Inscriptions (IN)
[ ] Hearth/Campfire (HE)
[ ] Quarry (QU)
[ ] Other (OT)

Describe: None observed.

*15. **Buildings and Structures (locate on site map):**

#	MATERIAL	TYPE

Describe: None observed.

16. **Comments/Continuations** - *(Please make note of any Historic Record searches performed (for example - County Records, General Land Office, Historical Society, Land Management Agency Records, Oral Histories/Interviews)*

References:

Bitting, A. W. 1937. *Appertizing or The Art of Canning; Its History and Development.* The Trade Pressroom, San Francisco, California.

Part C - Historic Sites

State No. 26Mn1659
Agency No.
Temp. No. KEC-590-11

Bowyer, G. C. 2002. Twentieth Century Material Culture Variability: Valve Marks, Milk Cans, and Tobacco Tins. In *Contributions to the Archaeology of Oregon*, edited by L. A. Speulda and G. C. Bowyer, pp. 109-119. Occasional Papers No. 7. Association of Oregon Archaeologists.

Cleeland, T. A. (compiler). 1984. *Historic Artifact Dating Guide*. Archaeology Laboratory, Northern Arizona University, Flagstaff, Arizona.

Crystal Springs Water Company. 2007. History. Electronic document, http://www.crystalspringswater.org/index.htm, accessed July 2, 2007.

Edwards, S. R., M. E. Kimball, and M. E. Roberson. 1990. *The Archaeological Testing and Evaluation of the "Fairview Mining Complex" Site CRNV61-360/26NY5989 for Round Mountain Gold Corporation, Round Mountain, Nye County, Nevada.* Division of Anthropological Studies, Environmental Research Center, Barrick Museum of Natural History, University of Nevada-Las Vegas. DAS Report 5-126-1b. On file, USDI Bureau of Land Management, Tonopah Field Office, Tonopah, Nevada, Report No. CRR6-1301-1.

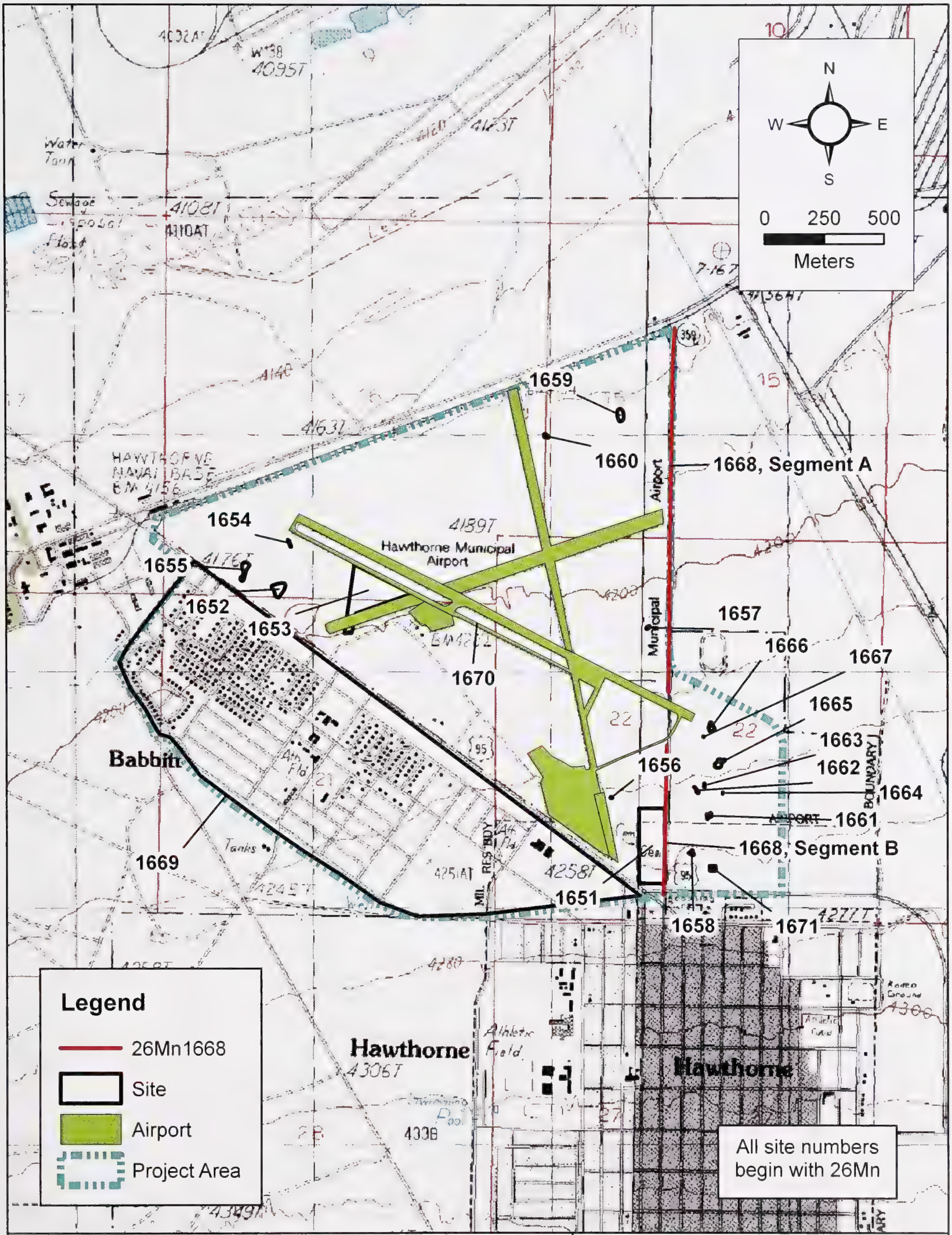
Martells, J. 1976. *The Beer Can Collector's Bible*. Ballantine Books, New York.

Pool, J. C. 1991. *An Overview of Nineteenth and Twentieth Century Buttons*. Research Notes Historic Sites and Materials 1. Texas Parks and Wildlife Department, Austin, Texas.

Pulati, E. 1973. *Illustrated Tin Container Guide*. Privately published, Santa Ana, California.

Rock, J. T. 1989. *Tin Canisters: Their Identification*. Ms. on file, USDA Forest Service, Klamath National Forest, Yreka, California.

Simonis, D. 1997. *Simonis Can Guide*. USDI Bureau of Land Management, Kingman Field Office, Kingman, Arizona.



Site Location Map: Site No. 26Mn1659 (KEC-590-11)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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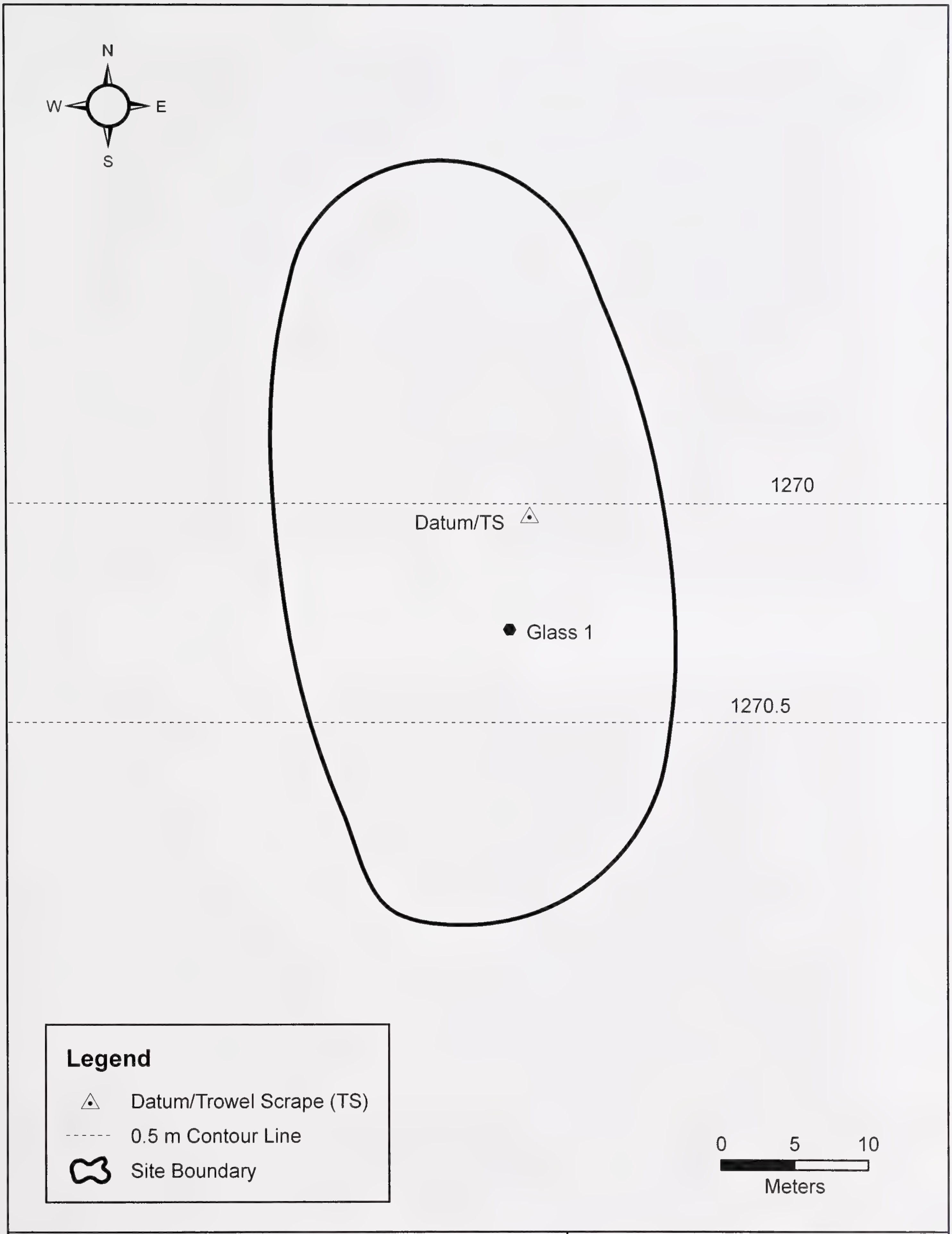

Site Sketch Map: Site No. 26Mn1659 (KEC-590-11)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-25-07

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Photograph 1 (IMACS) Site 26Mn1659 (KEC-590-11). Site overview (70°). Kautz Environmental Consultants, Inc., 2007.

GSA
TO SCALE FOCUS GUIDE
Avoid incorrect exposures by taking meter readings before placing scale in picture area. Fine-focus on GSA seal
IN
ain Size Scale

Photograph 2 (IMACS) Site 26Mn1659 (KEC-590-11). 5 gallon glass water jug (Detail). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible_X_ Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

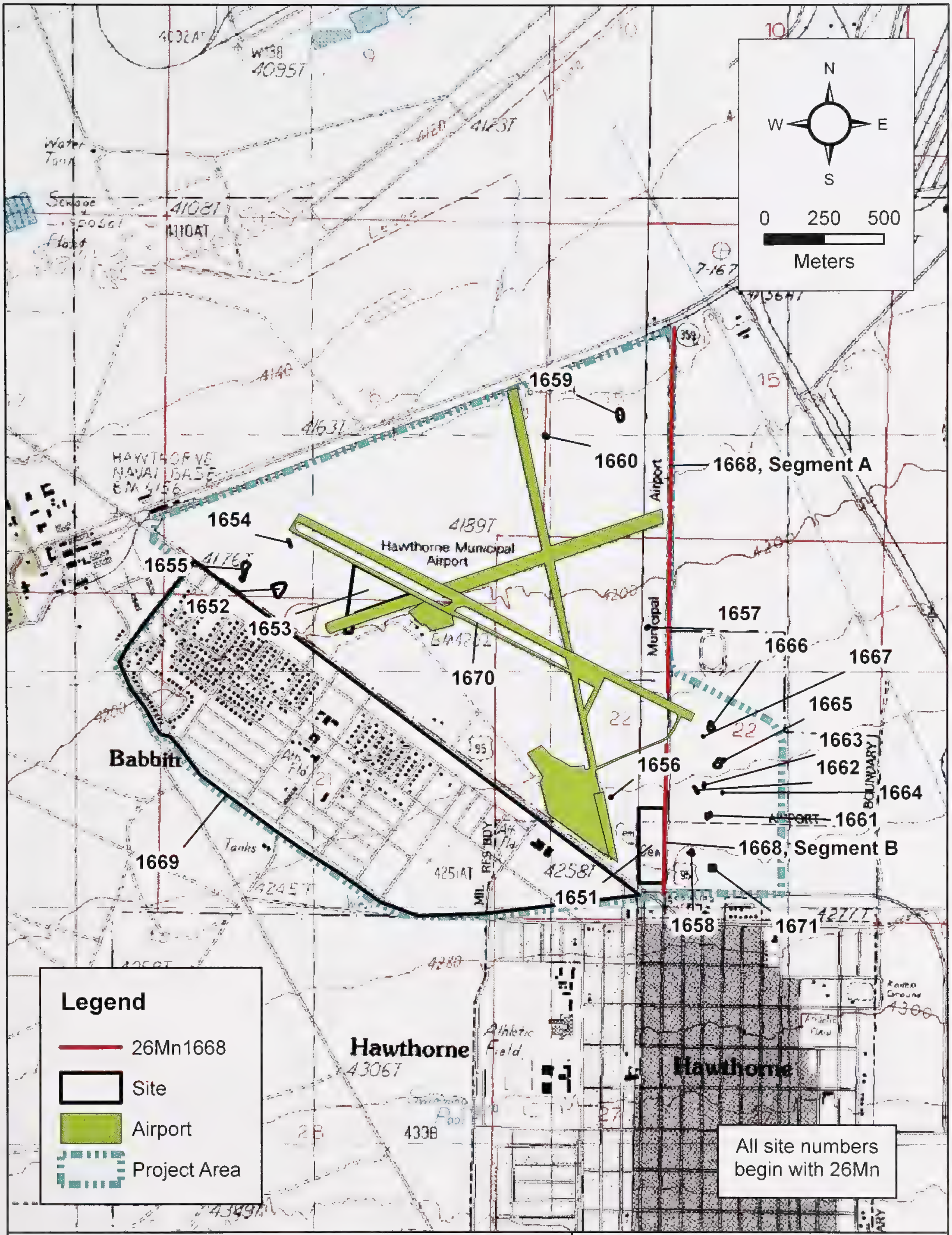
***1. State Site No.:** 26Mn1660 ***2. Agency Site No.:** **3. Temp Site No.:** KEC-590-13
4. Project Name: Hawthorne Survey (KEC-590) **5. NSM Report Number:**
***6. Agency Report Number:** **County:** Mineral
7. Site/Property Name: None
8. Site Class: Prehistoric _X_ Historic __ **Historic Theme/Affiliation:** None (A); Unknown Aboriginal (Z)
Site Area: 17 m N/S x 19 m E/W (Area: 231 sq. m) **Age:** Unknown (Z)
Dating Method: None (A) **Depth of Cultural Fill:** Surface (A)

9. Site Description: This site is a small prehistoric lithic scatter, located on a flat valley floor south of Walker Lake and north of Hawthorne. This site contains three obsidian flakes, and an obsidian biface. All three flakes are biface thinning flakes. The biface is a Stage V tip fragment (4.1) x 1.9 cm, whose thickness is unknown. It appears to be the tip fragment of a large tool, and displays extensive weathering, suggesting that it may be quit old. No additional prehistoric artifacts, temporally diagnostic artifacts, or features were observed. A trowel scrape in the approximate center of the site revealed loose, sandy soil. This location is also the site datum. There was no indication of subsurface cultural materials.

National Register Significance: This site is a small prehistoric lithic scatter, with no tools or features. This site is not characterized by an abundance or diversity of prehistoric lithic artifacts; does not contain temporally diagnostic artifacts, has no prehistoric features, and appears entirely confined to the surface. Consequently, it does not contain data addressing the prehistoric research themes and associated questions developed for the region. Therefore, this site is recommended as not significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, d).

***10. Elevation:** 4,057 ft. ***11. UTM Grid Zone (NAD 1983):** Zone 11 357895 **mE** 4268192 **mN** [Datum]
***12. Township/Range** (To quarter section only): SW¼ of Section 15, T.8N., R.30E.
***13. Meridian:** Mt. Diablo (7)
***14. Map Reference:** *Hawthorne West, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
***15. Land Owner:** Municipal ***16. Federal Administrative Unit:** N/A
***17. Distance to Permanent Water:** 62 x 100 meters NW **Type:** (A) spring __ (B) stream/river__ (C) lake _X_ (D) other__
Walker Lake
***18. Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
***19. Topographic Location/Primary Landform:** Valley (E) ***20. Depositional Context:** Flood Plain (K)
***21. Vegetation Community** (primary only): Shadscale community (O)
22. Photographs (Roll & Frame Nos.): KEC-590 Roll 3, Frames 33-35
23. Recorded by: R. Breitling **Date:** June 21, 2007
***24. Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)



Site Location Map: Site No. 26Mn1660 (KEC-590-13)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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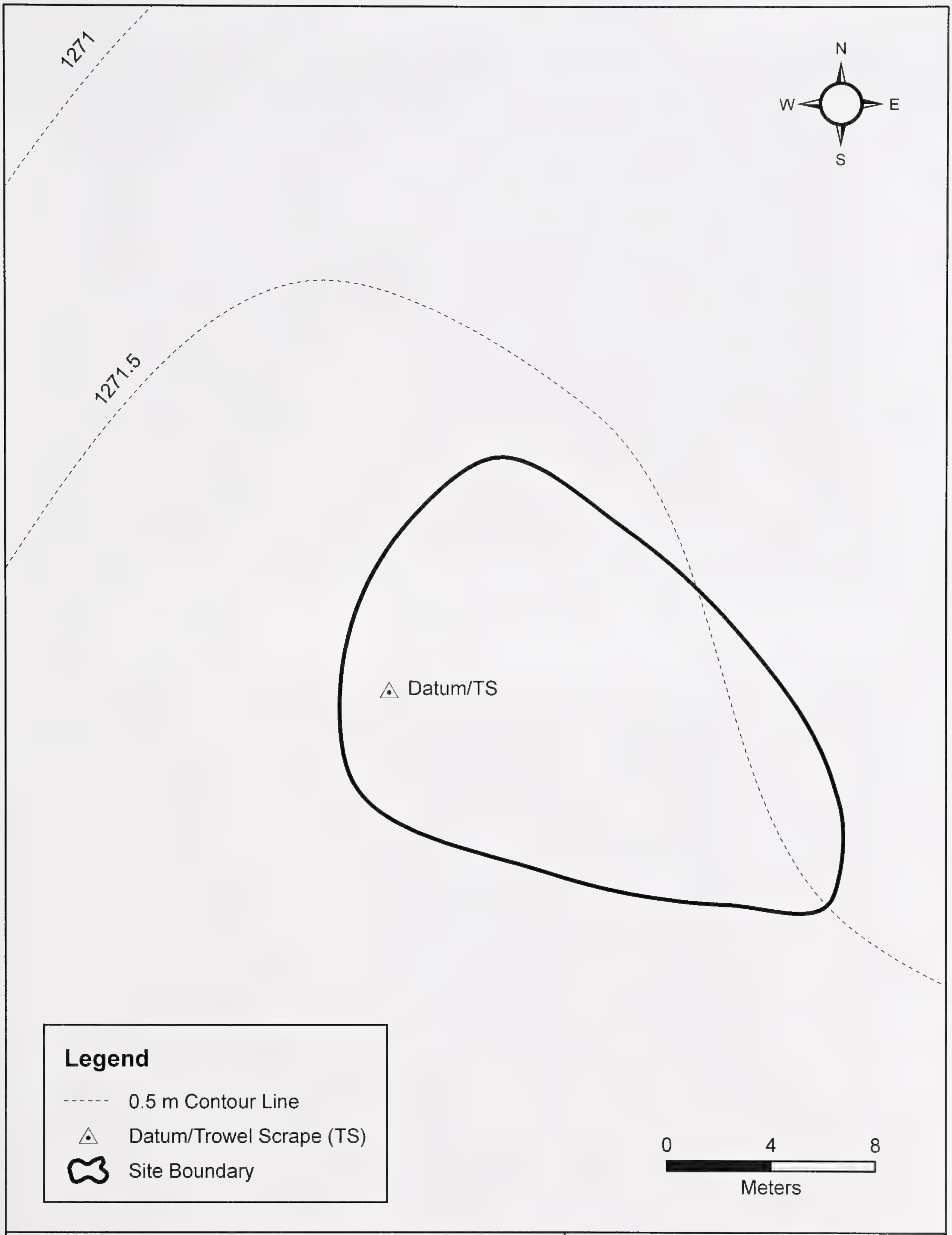

Site Sketch Map: Site No. 26Mn1660 (KEC-590-13)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-26-07

kautz
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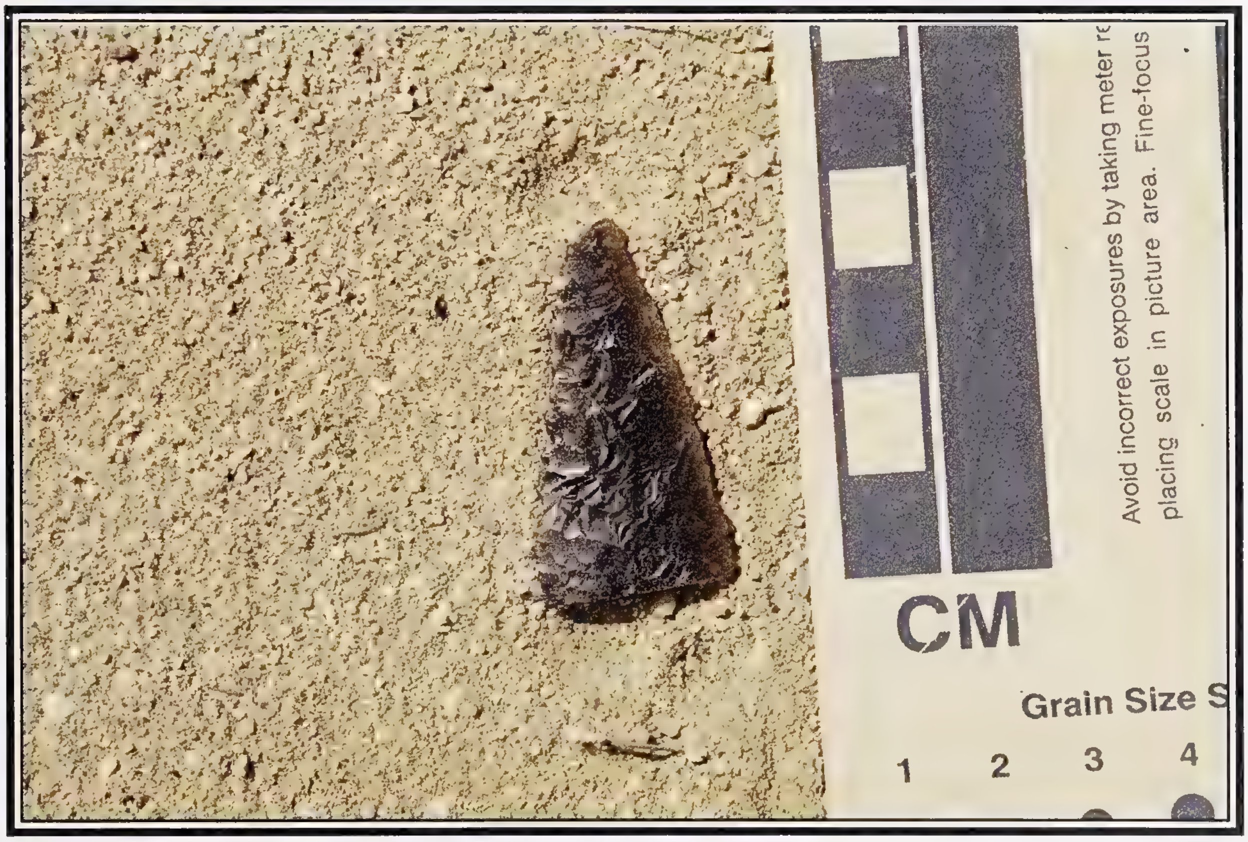
Photograph 1 (IMACS) Site 26Mn1660 (KEC-590-13). Site overview (90°). Kautz Environmental Consultants, Inc., 2007.


Avoid incorrect exposures by taking meter r
placing scale in picture area. Fine-focus
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Photograph 2 (IMACS) Site 26Mn1660 (KEC-590-13). Biface 1, side B (Detail). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible _X_ Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

***1. State Site No.:** 26Mn1661 ***2. Agency Site No.:** **3. Temp Site No.:** KEC-590-14
4. Project Name: Hawthorne Survey (KEC-590) **5. NSM Report Number:**
***6. Agency Report Number:** **County:** Mineral
7. Site/Property Name: None
8. Site Class: Prehistoric __ Historic _X_ **Historic Theme/Affiliation:** None (A); European/American (EA)
Site Area: 26 m N/S x 21 m E/W (Area: 328 sq. m) **Age:** c. 1931 to c. 1940s
Dating Method: Cross-Dating/Diag. Artifacts (F) **Depth of Cultural Fill:** Surface (A)

9. Site Description: This site is a small, sparse, historic refuse scatter, located on a flat valley floor north of Hawthorne and south of Walker Lake. The scatter consists of ten tin cans (three upright pocket tobacco, three hole-in-cap, three vent hole, one flat oblong, one tall rectangular). A complete inventory of artifacts was done. The maximum artifact density is two cans/sq. m. No features were associated with this site. The site datum and a 10 cm^3 trowel scrape are located in the approximate center of the scatter. The trowel scrape yielded sandy silty soils, and had no subsurface cultural materials.

National Register Significance: This site is a small scatter of tin cans representing a single dumping episode, that has a suggested date range of c. 1931 to c. 1940s. While this site is probably related to the towns of Babbitt and Hawthorne, and/or possibly U. S. Highway 95, all of which occur less than one mile distant, no specific historic event(s) can be assigned to this site. This site cannot be definitively associated with the life of an important historic figure(s), nor does it contain outstanding engineering features. This site is not identified on historic maps or indices of the area. Based on its lack of contextual information, its surficial nature, lack of associated features, and its relatively limited numbers and diversity of artifacts, this site does not have the potential to address historic research themes or associated questions developed for the region. Therefore, this site is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

***10. Elevation:** 4,175 ft. ***11. UTM Grid Zone (NAD 1983):** Zone 11 358589 **mE** 4266585 **mN** [Datum]
***12. Township/Range** (To quarter section only): SE¼ of Section 22, T.8N., R.30E.
***13. Meridian:** Mt. Diablo (7)
***14. Map Reference:** *Hawthorne East, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
***15. Land Owner:** Municipal ***16. Federal Administrative Unit:** N/A
***17. Distance to Permanent Water:** 78 x 100 m NW, Walker Lake **Type:** (A) spring __ (B) stream/river__ (C) lake _X_ (D) other__
***18. Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
***19. Topographic Location/Primary Landform:** Valley (E) ***20. Depositional Context:** Flood Plain (K)
***21. Vegetation Community** (primary only): Shadscale Community (O)
22. Photographs (Roll & Frame Nos.): KEC-590 Roll 2, Frames 24-27
23. Recorded by: N. Rhyne **Date:** June 20, 2007
***24. Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Artifact Summary: Note: The measurements of the tin cans follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2-6/16 in. x 3-5/16 in. x 1-4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.

Count/density	Material	Artifact/code	Comments
3	Metal (ME)	Tin Can - Hole-in-cap (TD)	**Tin Can 2:** Three hole-in-cap, internal rolled seam, 2x knife punch opened, 300 x 406, food; c. 1901-1940 (Rock 16-17, 40, 49-50, 58, 61-62).
1	Metal (ME)	Tin Can (MA)	**Tin Can 3:** One flat oblong, three-piece, key-wind top strip opened, 404 x 015 x 301, fish; c. 1919-date (Rock 1989:140).
3	Metal (ME)	Tin Can - Vent hole (TH)	Vent hole, knife cut around opened, 213 x 403, possibly condensed milk; can size does not fit information provided by Bitting (1937:751), Bowyer (2002:113-114), or Simonis (1997), though it may be a variation of Bitting's (1937:751) No. 1A can, 300 x 306, which was introduced in c. 1931 and probably used to the World War II period, c. 1943.
3	Metal (ME)	Tobacco Tin (TO)	**Tin Can 1:** Upright pocket tobacco, external friction with wire pin hinge lid, 300 x 406 x 015, no strike plate, c. 1901-c. 1972 (Cleeland 1984:22; Rock 1989:150-152).
1	Metal (ME)	Utility Can (CU)	Tall rectangular, crushed.

State Site No.: 26Mn1661 **Agency Site No.:** **Temp Site No.:** KEC-590-14

Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)

References:

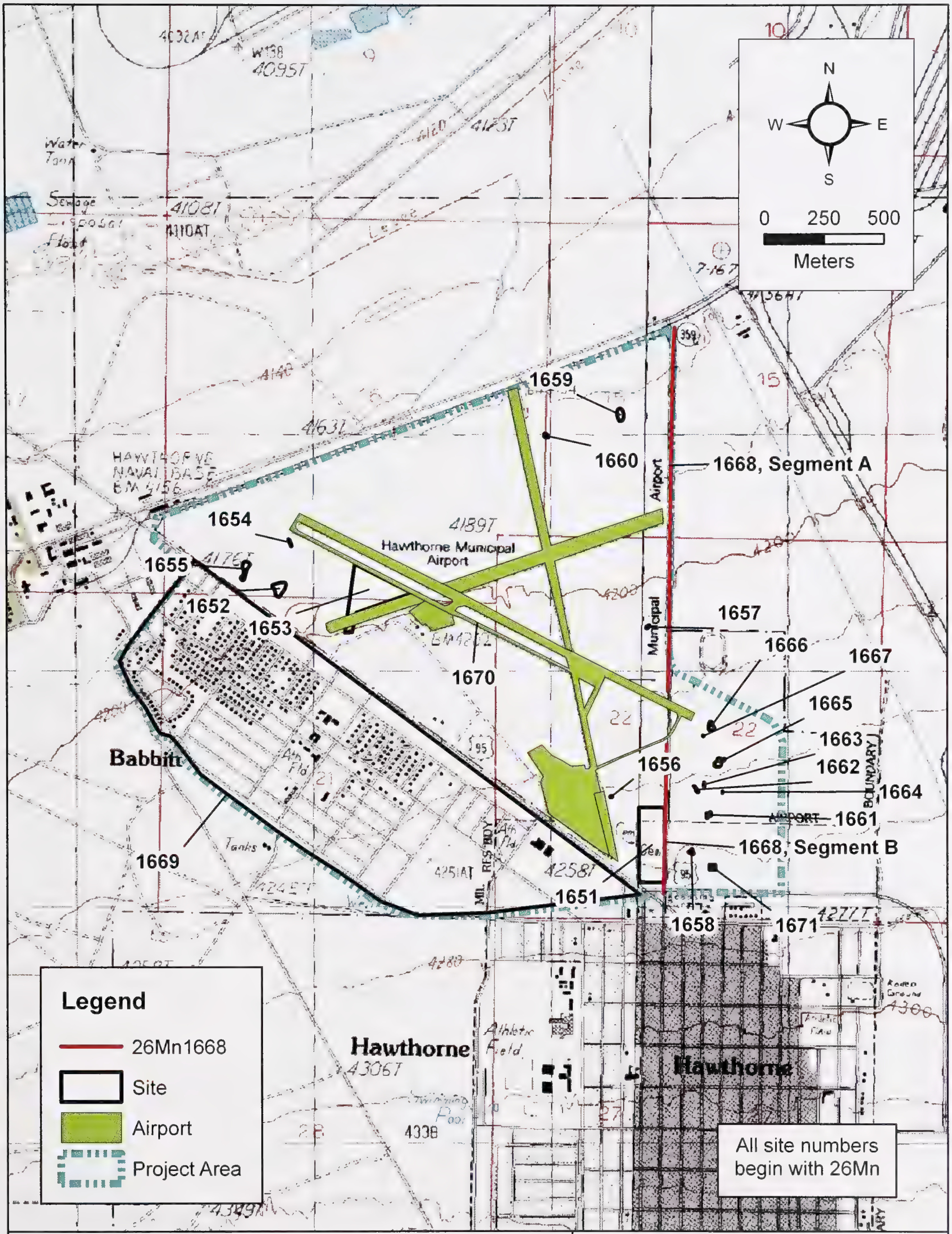
Bitting, A. W. 1937. *Appertizing or The Art of Canning; Its History and Development.* The Trade Pressroom, San Francisco, California.

Bowyer, G. C. 2002. Twentieth Century Material Culture Variability: Valve Marks, Milk Cans, and Tobacco Tins. In *Contributions to the Archaeology of Oregon*, edited by L. A. Speulda and G. C. Bowyer, pp. 109-119. Occasional Papers No. 7. Association of Oregon Archaeologists.

Cleeland, T. A. (compiler). 1984. *Historic Artifact Dating Guide.* Archaeology Laboratory, Northern Arizona University, Flagstaff, Arizona.

Rock, J. T. 1989. *Tin Canisters: Their Identification.* Ms. on file, USDA Forest Service, Klamath National Forest, Yreka, California.

Simonis, D. 1997. *Simonis Can Guide.* USDI Bureau of Land Management, Kingman Field Office, Kingman, Arizona.



Site Location Map: Site No. 26Mn1661 (KEC-590-14)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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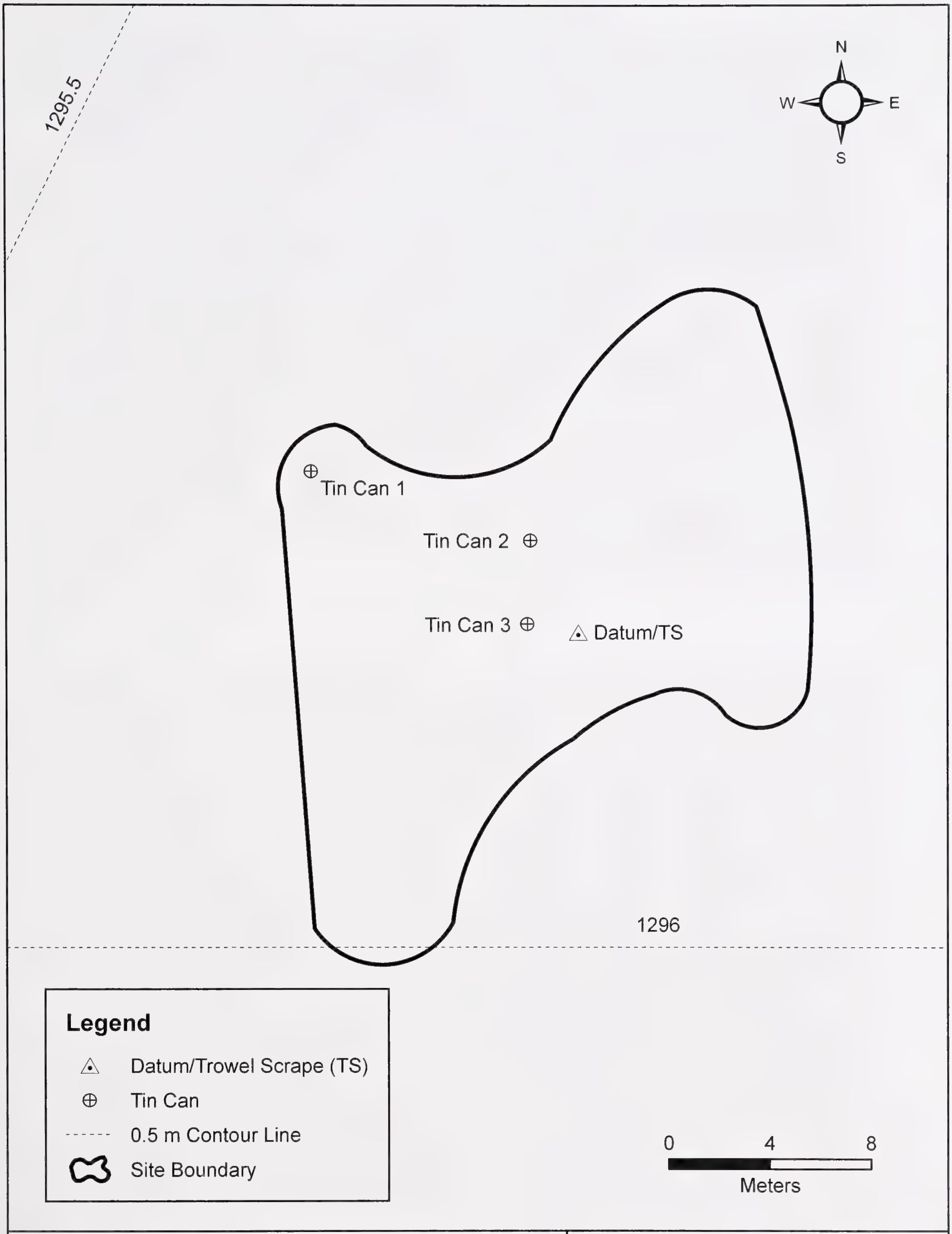

Site Sketch Map: Site No. 26Mn1661 (KEC-590-14)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-26-07

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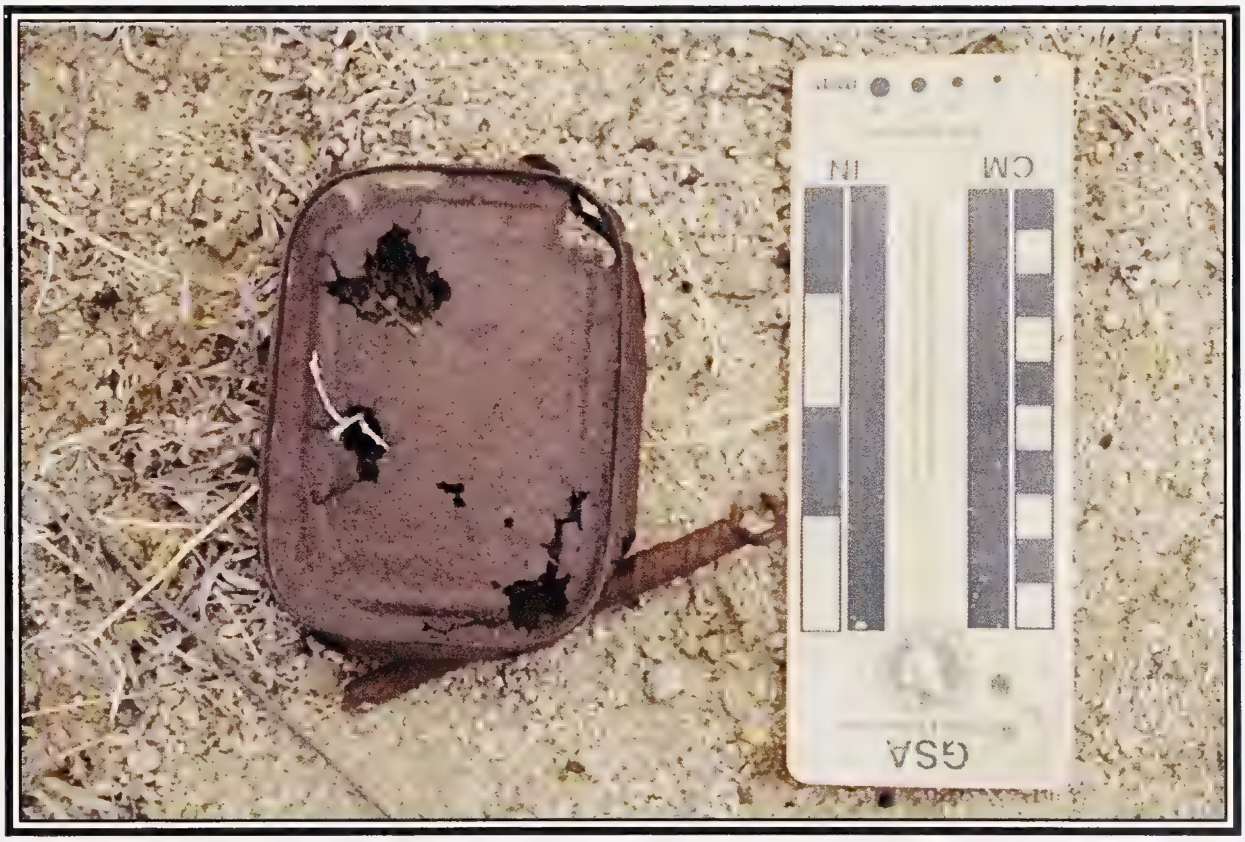
Photograph 1 (IMACS) Site 26Mn1661 (KEC-590-14). Site overview (330°). Kautz Environmental Consultants, Inc., 2007.



Photograph 2 (IMACS) Site 26Mn1661 (KEC-590-14). Tin can 3, sardine can (Detail). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible X Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

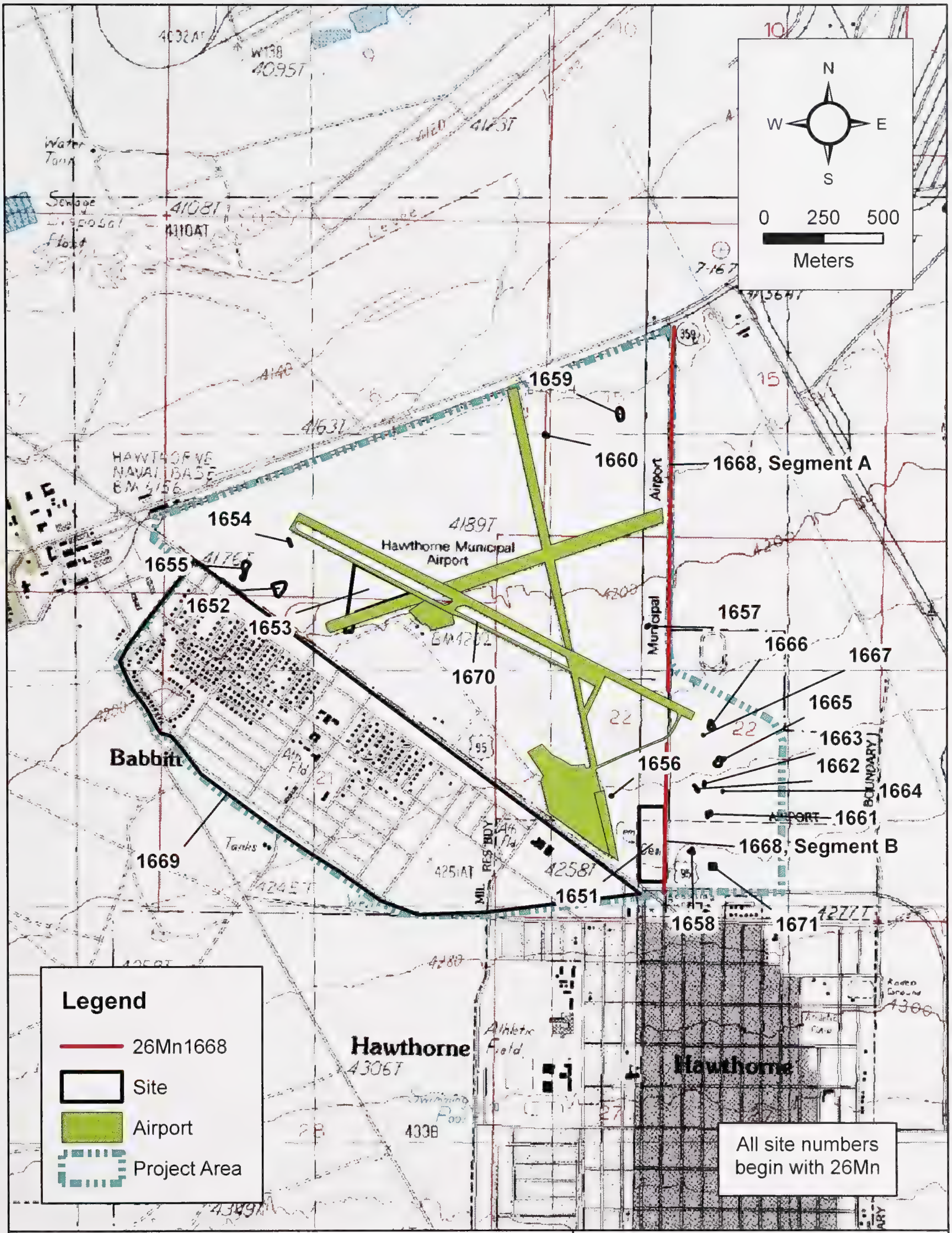
*1. **State Site No.:** 26Mn1662 *2. **Agency Site No.:** 3. **Temp Site No.:** KEC-590-16
4. **Project Name:** Hawthorne Survey (KEC-590) 5. **NSM Report Number:**
*6. **Agency Report Number:** **County:** Mineral
7. **Site/Property Name:** None
8. **Site Class:** Prehistoric X Historic __ **Historic Theme/Affiliation:** None (A); Unknown Aboriginal (Z)
Site Area: 32 m N/S x 8 m E/W (Area: 146 sq. m) **Age:** Unknown (Z)
Dating Method: None (A) **Depth of Cultural Fill:** Surface (A)

9. **Site Description:** This site is a small prehistoric lithic scatter, located on a flat valley floor south of Walker Lake and north of Hawthorne. This site contains five obsidian flakes. Of these, three are biface thinning flakes, and two are pressure flakes. Several flakes are very worn, probably due to sand-blasting. No tools or features were identified in association with this site. A road 1.5 meter wide bisects the site in the north half. A trowel scrape in the approximate center of the site revealed loose, sandy soil. This location is also the site datum. There was no indication of subsurface cultural materials.

National Register Significance: This site is a small prehistoric lithic scatter. This site is not characterized by an abundance or diversity of prehistoric lithic artifacts; does not contain temporally diagnostic artifacts, has no prehistoric features, and appears entirely confined to the surface. Consequently, it does not contain data addressing the prehistoric research themes and associated questions developed for the region. Therefore, this site is recommended as not significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, d).

*10. **Elevation:** 4,162 ft. *11. **UTM Grid Zone (NAD 1983):** Zone 11 358536 **mE** 4266691 **mN** [Datum]
*12. **Township/Range** (To quarter section only): SE¼ of Section 22, T.8N., R.30E.
*13. **Meridian:** Mt. Diablo (7)
*14. **Map Reference:** *Hawthorne East, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
*15. **Land Owner:** Municipal *16. **Federal Administrative Unit:** N/A
*17. **Distance to Permanent Water:** 75 x 100 meters NW **Type:** (A) spring __ (B) stream/river__ (C) lake X (D) other__
Walker Lake
*18. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
*19. **Topographic Location/Primary Landform:** Valley (E) *20. **Depositional Context:** Flood Plain (K)
*21. **Vegetation Community** (primary only): Shadscale community (O)
22. **Photographs** (Roll & Frame Nos.): KEC-590 Roll 2, Frames 28-29
23. **Recorded by:** N. Rhyne **Date:** June 20, 2007
*24. **Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)



Site Location Map: Site No. 26Mn1662 (KEC-590-16)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987.
T.8N., R.30E.

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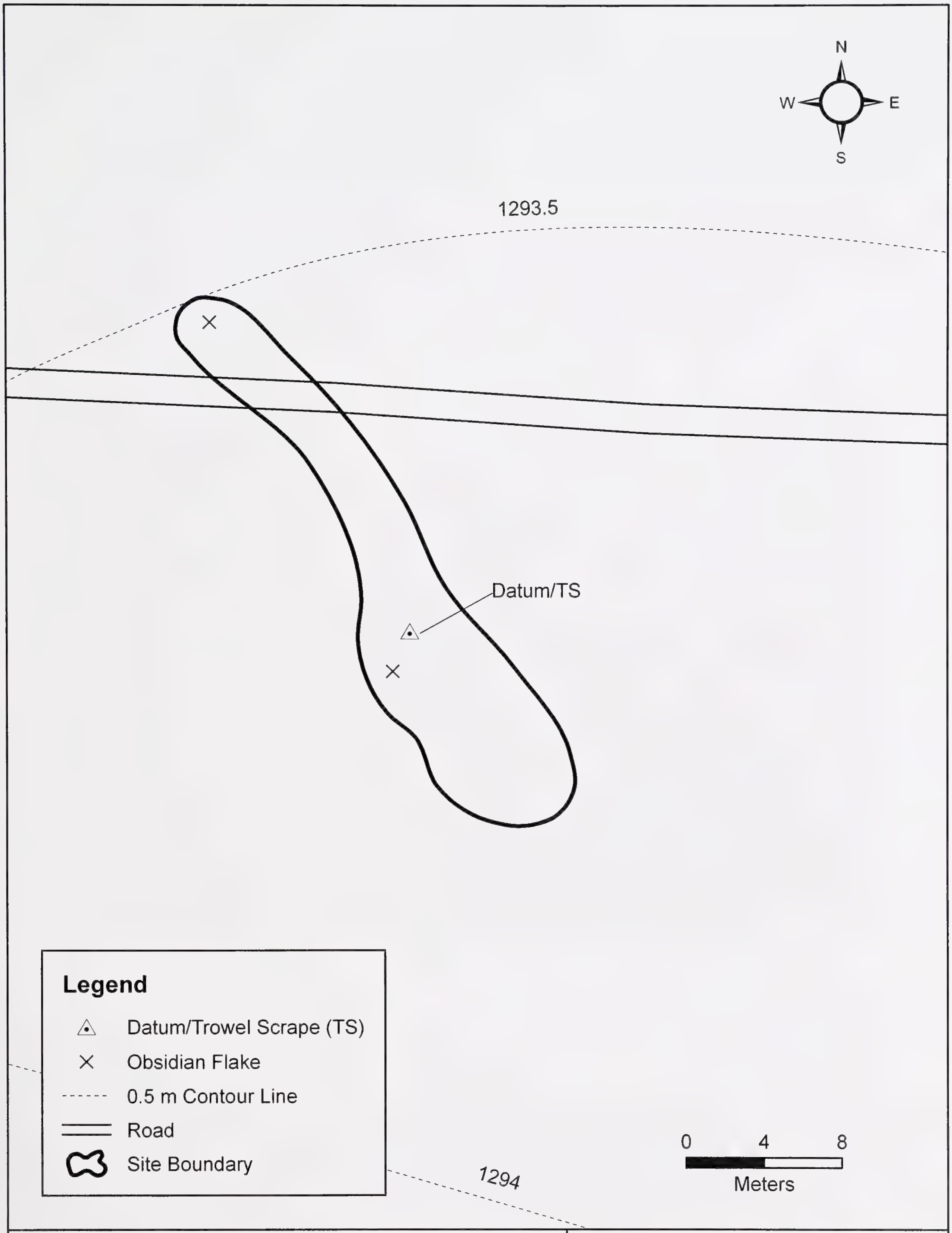

Site Sketch Map: Site No. 26Mn1662 (KEC-590-16)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-26-07

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Photograph 1 (IMACS) Site 26Mn1662 (KEC-590-16). Site overview (240°). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible _X_ Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

*1. **State Site No.:** 26Mn1663 *2. **Agency Site No.:** 3. **Temp Site No.:** KEC-590-18
4. **Project Name:** Hawthorne Survey (KEC-590) 5. **NSM Report Number:**
*6. **Agency Report Number:** **County:** Mineral
7. **Site/Property Name:** None
8. **Site Class:** Prehistoric __ Historic _X_ **Historic Theme/Affiliation:** Community Development (CD); European/American (EA)
Site Area: 17 m N/S x 4 m E/W (Area: 58 sq. m) **Age:** c. 1920s-1950s
Dating Method: Cross-Dating/Diag. Artifacts (F) **Depth of Cultural Fill:** Surface (A)

9. **Site Description:** This site contains fragments from three glass insulators from an historic utility line, located on a flat valley floor between Walker Lake and the town of Hawthorne, Nevada. The site does not have any features representing remnants of the utility line, such as poles. A modern utility line is located 40-50 meters west of the site. The insulators are Hemingray and McLaughlin, dating between the 1920s and the 1950s, used for long distance telephone lines. The datum is located in the center of the site. A trowel scrape placed here revealed coarse, sandy lakebed sediments, and no subsurface cultural materials.

National Register Significance: This site is a small scatter of glass insulator fragments from an historic utility line, dating from the 1920s to the 1950s. No features associated with the line are extant. While this site is related to the theme of settlement, it is not associated with a specific historic event(s). While this site is probably related to the towns of Babbitt and Hawthorne, and/or possibly U. S. Highway 95, all of which occur less than one mile distant, no specific historic event(s) can be assigned to this site. This site cannot be definitively associated with the life of an important historic figure(s), nor does it contain outstanding engineering features. This site is not identified on historic maps or indices of the area. Based on its lack of contextual information, its surficial nature, lack of associated features, and its relatively limited numbers and diversity of artifacts, this site does not have the potential to address historic research themes or associated questions developed for the region. Therefore, this site is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

*10. **Elevation:** 4,247 ft. *11. **UTM Grid Zone (NAD 1983):** Zone 11 358568 **mE** 4266715 **mN** [Datum]
*12. **Township/Range** (To quarter section only): SE¼ of Section 22, T.8N., R.30E.
*13. **Meridian:** Mt. Diablo (7)
*14. **Map Reference:** *Hawthorne East, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
*15. **Land Owner:** Municipal *16. **Federal Administrative Unit:** N/A
*17. **Distance to Permanent Water:** 76 x 100 m NW, Walker Lake **Type:** (A) spring __ (B) stream/river__ (C) lake _X_ (D) other__
*18. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
*19. **Topographic Location/Primary Landform:** Valley (E) *20. **Depositional Context:** Flood Plain (K)
*21. **Vegetation Community** (primary only): Shadscale Community (O)
22. **Photographs** (Roll & Frame Nos.): KEC-590 Roll 2, Frames 30-33
23. **Recorded by:** N. Rhyne **Date:** June 20, 2007
*24. **Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Artifact Summary: Note: The measurements of the tin cans follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2-6/16 in. x 3-5/16 in. x 1-4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.

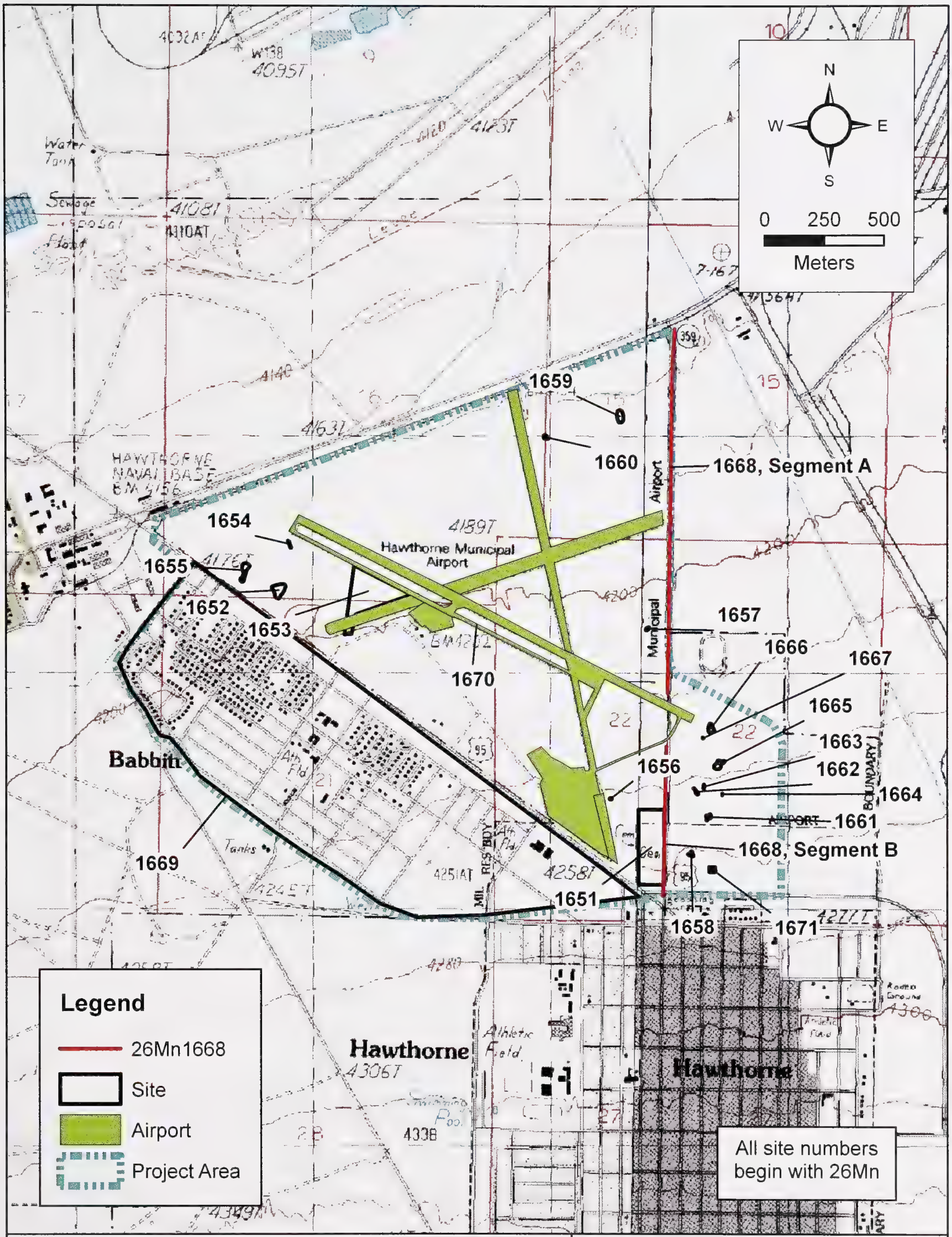
Count/density	Material	Artifact/code	Comments
1	Glass (GL)	Insulators (IN)	Colorless, complete, "HEMINGRAY-45 / MADE IN U.S.A. / I-41" embossed on skirt, manufactured from 1938-1950s for long distance telephone (Glass Insulators 2001; McDougald and McDougald 1990:1:78)
3	Glass (GL)	Insulators (IN)	Three aqua glass insulator fragments, no makers' marks
1	Glass (GL)	Insulators (IN)	Colorless fragment, "McLAUGH.." for McLaughlin Glass Co., who made insulators between the late 1920s and 1935 (McDougald and McDougald 1990:1:92; Whitten n.d.)

Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)
References:

Glass Insulators. 2001. *Insulator Profile: Hemingray-45*. Electronic document, http://www.insulators.com/general/profiles/155hemi.htm, accessed July 2, 2007.

McDougald, J., and C. McDougald. 1990. *Insulators: A History and Guide to North American Glass Pintype Insulators*, vol. 1. Privately published, St. Charles, Illinois.

Whitten, D. n.d. *Glass Factories that Manufactured Insulators: McLaughlin Glass Company*. Electronic document, http://www.myinsulators.com/glass-factories/McLaughlin.html, accessed July 2, 2007.



Site Location Map: Site No. 26Mn1663 (KEC-590-18)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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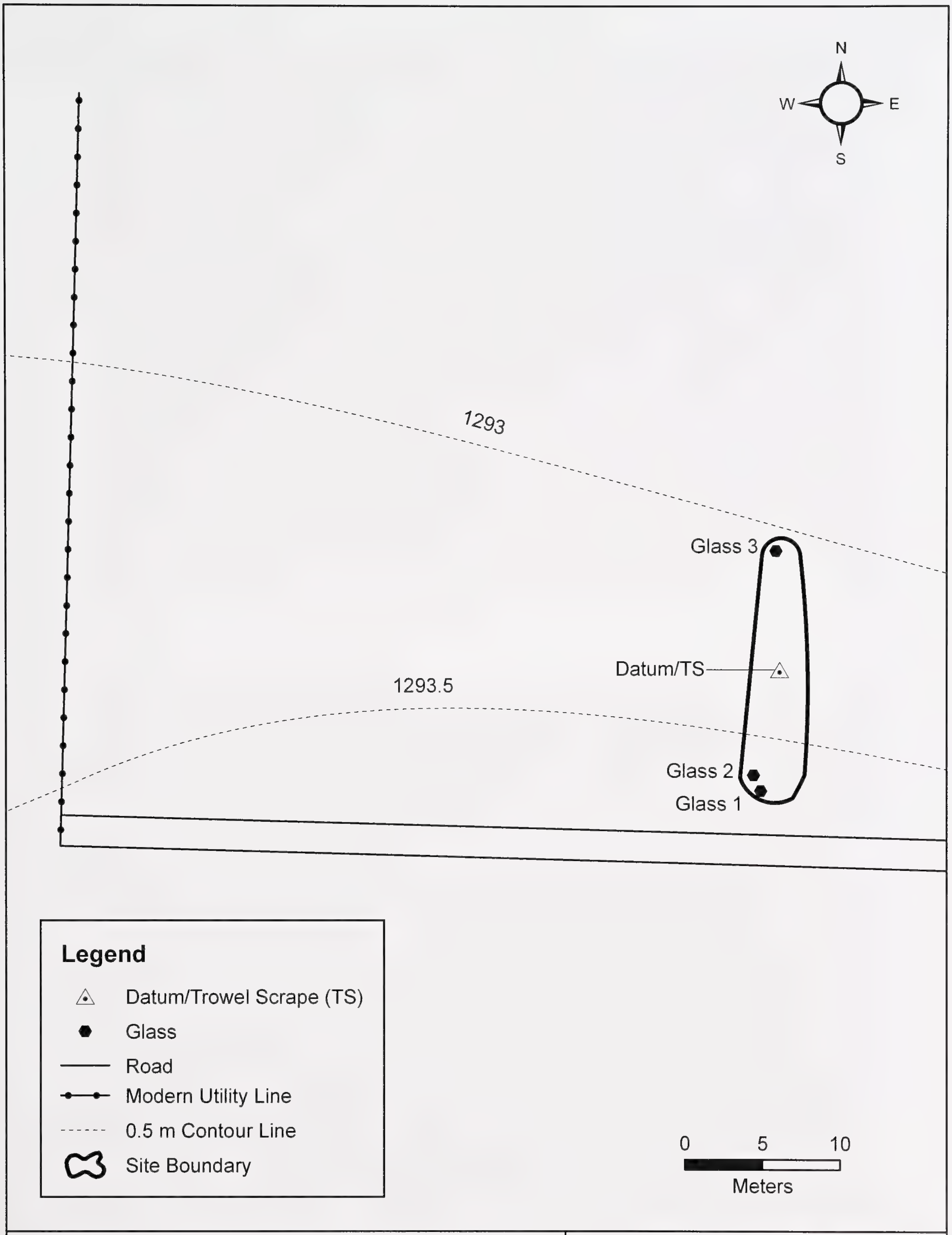

Site Sketch Map: Site No. 26Mn1663 (KEC-590-18)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-26-07

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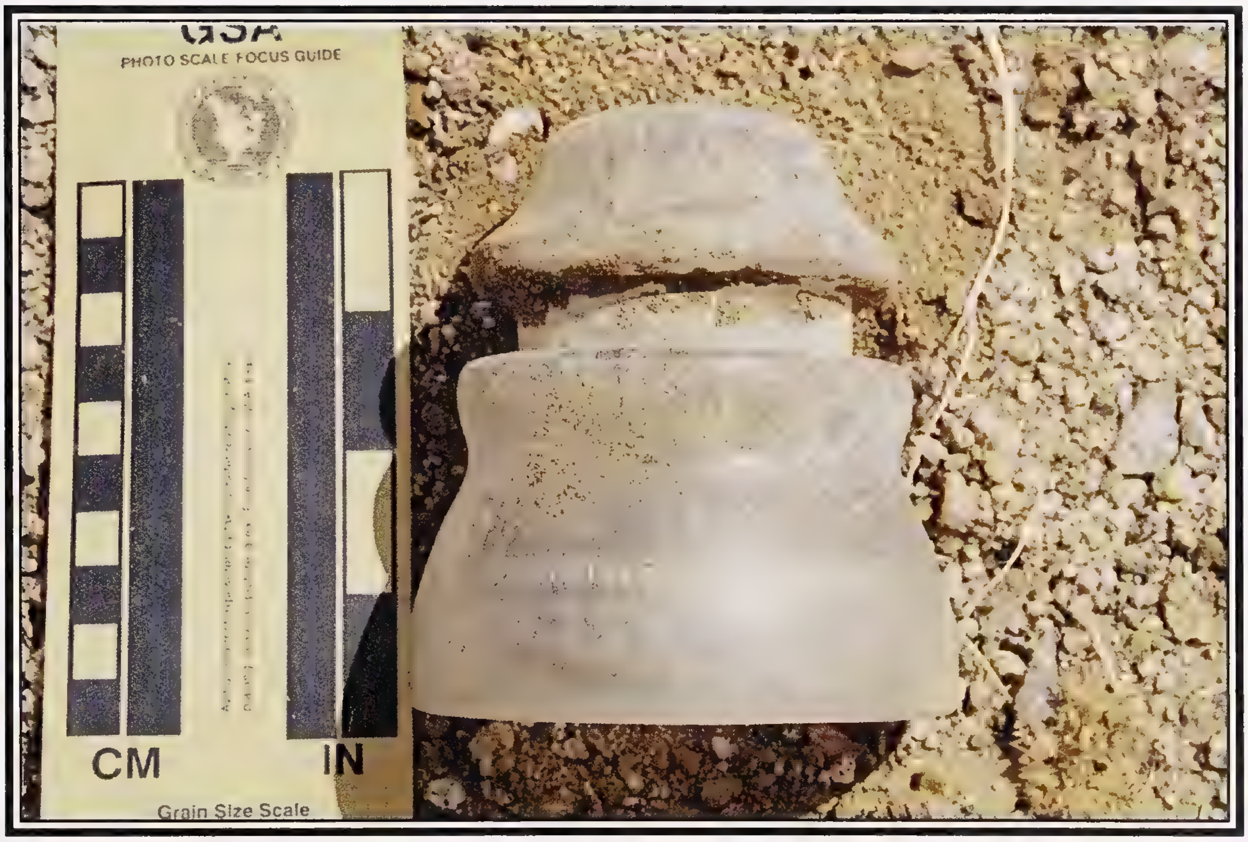
ENVIRONMENTAL CONSULTANTS, INC.

Photograph 1 (IMACS) Site 26Mn1663 (KEC-590-18). Site overview (0°). Kautz Environmental Consultants, Inc., 2007.



Photograph 2 (IMACS) Site 26Mn1663 (KEC-590-18). Glass 1, "Hemingray-48" (Detail). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible _X_ Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

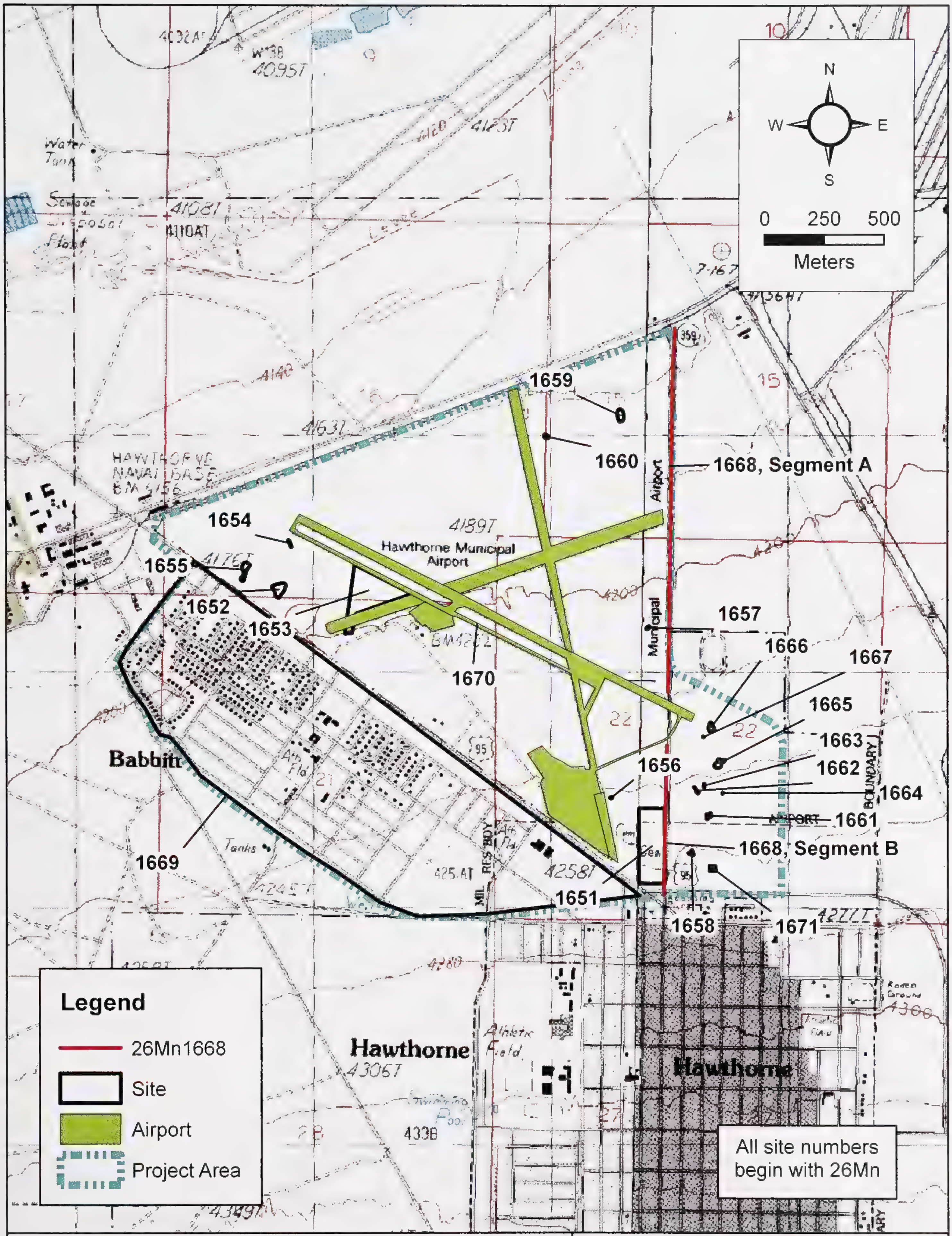
*1. **State Site No.:** 26Mn1664 *2. **Agency Site No.:** 3. **Temp Site No.:** KEC-590-20
4. **Project Name:** Hawthorne Survey (KEC-590) 5. **NSM Report Number:**
*6. **Agency Report Number:** **County:** Mineral
7. **Site/Property Name:** None
8. **Site Class:** Prehistoric _X__ Historic __ **Historic Theme/Affiliation:** None (A); Unknown Aboriginal (Z)
Site Area: 7 m N/S x 2 m E/W (Area: 12 sq. m) **Age:** Unknown (Z)
Dating Method: None (A) **Depth of Cultural Fill:** Surface (A)

9. **Site Description:** This site is a small prehistoric lithic scatter, located on a flat valley floor south of Walker Lake and north of Hawthorne. This site consists of two obsidian flakes, one biface thinning and one pressure. Three unmodified obsidian nodules also are present. No prehistoric formed tools, temporally diagnostic artifacts, or features were observed. A trowel scrape in the approximate center of the site revealed coarse, sandy sediments. This location is also the site datum. There was no indication of subsurface cultural materials.

National Register Significance: This site is a small prehistoric lithic scatter, with no tools and no features. This site is not characterized by an abundance or diversity of prehistoric lithic artifacts; does not contain temporally diagnostic artifacts, has no prehistoric features, and appears entirely confined to the surface. Consequently, it does not contain data addressing the prehistoric research themes and associated questions developed for the region. Therefore, this site is recommended as not significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, d).

*10. **Elevation:** 4,165 ft. *11. **UTM Grid Zone (NAD 1983):** Zone 11 358647 **mE** 4266683 **mN** [Datum]
*12. **Township/Range** (To quarter section only): SE¼ of Section 22, T.8N., R.30E.
*13. **Meridian:** Mt. Diablo (7)
*14. **Map Reference:** *Hawthorne East, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
*15. **Land Owner:** Municipal *16. **Federal Administrative Unit:** N/A
*17. **Distance to Permanent Water:** 78 x 100 meters NW **Type:** (A) spring __ (B) stream/river__ (C) lake _X_ (D) other__
Walker Lake
*18. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
*19. **Topographic Location/Primary Landform:** Valley (E) *20. **Depositional Context:** Flood Plain (K)
*21. **Vegetation Community** (primary only): Shadscale community (O)
22. **Photographs** (Roll & Frame Nos.): KEC-590 Roll 2, Frame 35
23. **Recorded by:** N. Rhyne **Date:** June 21, 2007
*24. **Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)



Site Location Map: Site No. 26Mn1664 (KEC-590-20)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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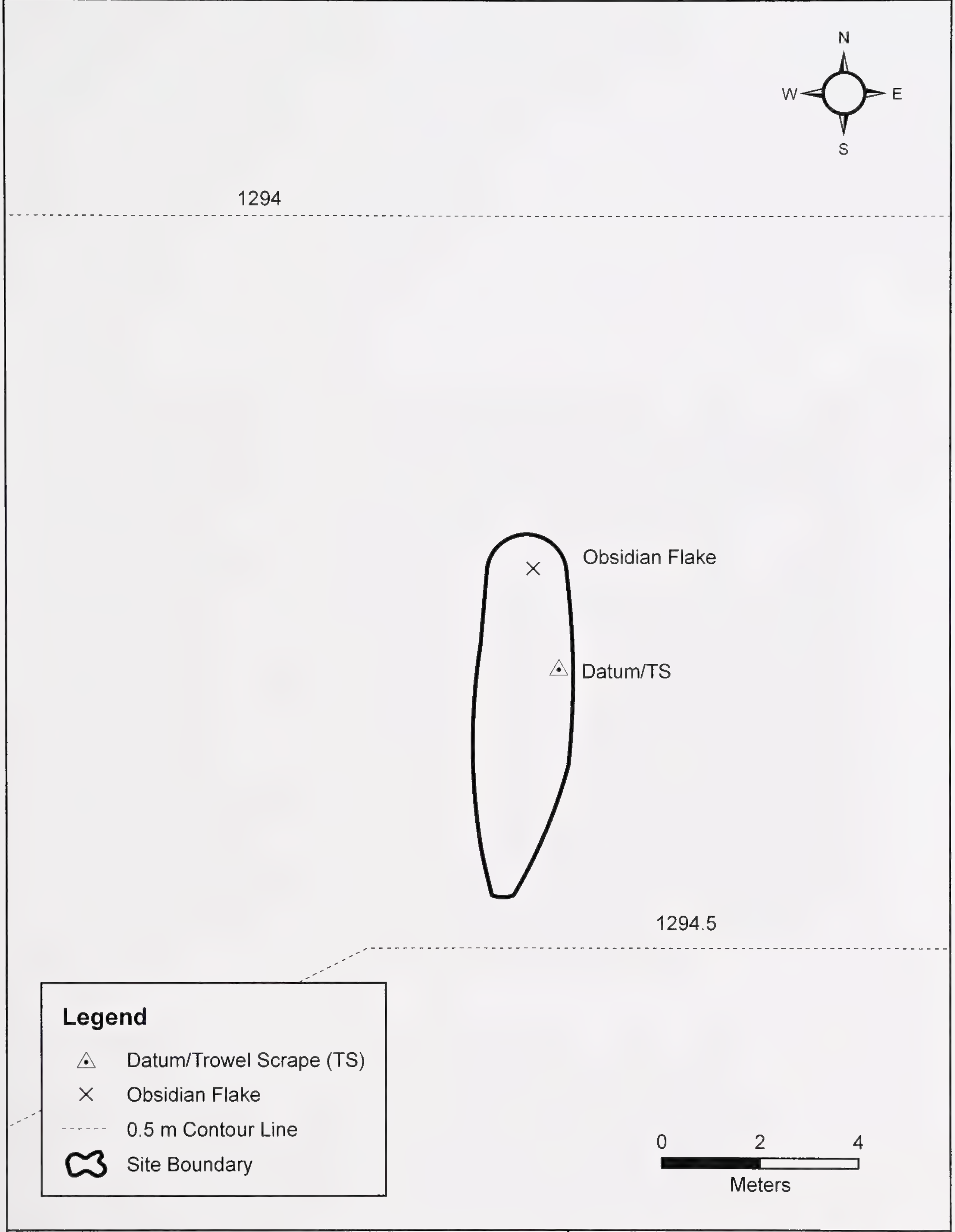

Site Sketch Map: Site No. 26Mn1664 (KEC-590-20)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-26-07

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Photograph 1 (IMACS) Site 26Mn1664 (KEC-590-20). Site overview (350°). Kautz Environmental Consultants, Inc., 2007.

IMACS SITE FORM
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

***1. State No.** 26Mn1665
***2. Agency No.**
3. Temp. No. KEC-590-22

Form approved for use by
BLM - Utah, Idaho, Wyoming, Nevada
Division of State History - Utah, Wyoming
USFS - Intermountain Region
NPS - Utah, Wyoming

Part A - Administrative Data

4. **State:** Nevada **County:** Mineral

5. **Project:** Hawthorne Survey (KEC-590)

*6. **Report No.:**

7. **Site Name / Property Name:** None

8. **Class:** [ ] Prehistoric [X] Historic [ ] Paleontologic [ ] Ethnographic

9. **Site Type:** Historic refuse scatter

*10. **Elevation:** 4,159 ft.

*11. **UTM Grid** (NAD 1983) **Zone** 11 358625 **mE** 4266801 **mN** [Datum]

*12. NW¼ of the NW¼ of the SE¼ of Section 22, T.8N., R.30E.

*13. **Meridian:** Mt. Diablo (7)

*14. **Map Reference:** *Hawthorne East, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)

15. **Aerial Photo:** None

16. **Location and Access:** Head south on Highway 95 from Fallon, Nevada. Continue roughly 80 miles to Hawthorne, Nevada. Before entering Hawthorne proper, turn left onto Thorne Road. Follow this road approximately 1.5 miles, bordering the northern end of the Hawthorne Municipal Airport, then turn right (south) onto Bonanza Road, and travel 1 mile. The site is due east of the road 300 meters.

*17. **Land Owner:** Municipal

*18. **Federal Administrative Units:** N/A

*19. **Location of Curated Materials:** N/A

20. **Site Description:** This site is a sparse historic refuse scatter, located on a flat valley floor between Walker Lake and the town of Hawthorne. Artifacts include 16 tin cans (hole-in-cap, upright pocket tobacco, sanitary, vent hole, key wind side strip, eternal friction), 16 amethyst and olive green glass fragments, a white improved earthenware ceramic sherd, a wire nail, a gear, two jar lids, and a metal box insert. This site appears to represent a single episode of dumping. The site datum is in the approximate site center. A trowel scrape revealed silty gravelly sands to 10 cmbs, and no subsurface cultural materials. The site does not have a high potential for buried cultural material.

*21. **Site Condition:** [ ] Excellent (A) [ ] Good (B) [X] Fair (C) [ ] Poor (D) [ ] Inundated (E) [ ] Destroyed (F)

*22. **Impact Agent(s):** Erosion (ER), Dumping

*23. **National Register Status:** [ ] Significant (C) [X] Non-Significant (D) [ ] Unevaluated (Z)

List of Attachments:
[ ] Part B
[X] Part C
[ ] Part E
[X] Topo Map
[X] Site Sketch
[X] Photos
[ ] Artifact/Feature Sketch
[ ] Continuation Sheets
[ ] Other:

*Encoded Data Items

Part A - Administrative Data

State No. 26Mn1665
Agency No. ______
Temp. No. KEC-590-22

Justify: This site appears to represent dumping of refuse dating from c. 1893-c. 1930s. While this site is probably related to the towns of Babbitt and Hawthorne, and/or possibly U. S. Highway 95, all of which occur less than one mile distant, no specific historic event(s) can be assigned to this site. This site cannot be definitively associated with the life of an important historic figure(s), nor does it contain outstanding engineering features. This site is not identified on historic maps or indices of the area. Based on its lack of contextual information, its surficial nature, lack of associated features, and its relatively limited numbers and diversity of artifacts, this site does not have the potential to address historic research themes or associated questions developed for the region. Therefore, this site is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

24. **Photos:** KEC-590 Roll 4, Frames 2-6

25. **Recorded by:** N. Rhyne

*26. **Survey Organization:** Kautz Environmental Consultants, Inc., Reno, Nevada (KF)

27. **Assisting Crew Members:** O. Lund, B. Rodela, R. Whalley *28. **Survey Date:** June 21, 2007

*29. **Slope:** 0 (Degrees) **Aspect:** 0 (Degrees)

*30. **Distance to Permanent Water:** 76 x 100 Meters to the NW

*Type of Water Source [ ] Spring/Seep (A) [ ] Stream/River (B) [X] Lake (C) [ ] Other (D)
Name of Water Source: Walker Lake

*31. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)

*32. **Topographic Location** - ***See Guide for additional information***

PRIMARY LANDFORM
[ ] Mountain spine (A)
[ ] Hill (B)
[ ] Tableland/Mesa (C)
[ ] Ridge (D)
[X] Valley (E)
[ ] Plain (F)
[ ] Canyon (G)
[ ] Island (H)
[ ] Alluvial fan (A)
[ ] Alcove/Rock Shelter (B)
[ ] Arroyo (C)
[ ] Basin (D)
[ ] Cave (E)
[ ] Cliff (F)
[ ] Delta (G)
[ ] Detached Monolith (H)

SECONDARY LANDFORM
[ ] Dune (I)
[X] Floodplain (J)
[ ] Ledge (K)
[ ] Mesa/Butte (L)
[ ] Playa (M)
[ ] Port. Geo. Feature (N)
[ ] Plain (O)
[ ] Ridge/Knoll (P)
[ ] Slope (Q)
[ ] Terrace/Bench (R)
[ ] Talus Slope (S)
[ ] Island (T)
[ ] Outcrop (U)
[ ] Spring Mound/Bog (V)
[ ] Valley (W)
[ ] Cutbank (X)
[ ] Riser (Y)
[ ] Multiple S. Landforms (1)
[ ] Bar (2)
[ ] Lagoon (3)
[ ] Ephemeral Wash (4)
[ ] Kipuka (5)
[ ] Saddle/Pass (6)
[ ] Graben (7)

Describe: The site is located on the flat valley floor, immediately north of Hawthorne, and south of Walker Lake.

*33. **On-site Depositional Context**

[ ] Fan (A)
[ ] Talus (B)
[ ] Dune (C)
[ ] Stream Terrace (D)
[ ] Playa (E)
[ ] Outcrop (Q)
[ ] Extinct Lake (F)
[ ] Extant Lake (G)
[ ] Alluvial Plain (H)
[ ] Colluvium (I)
[ ] Moraine (J)
[X] Flood Plain (K)
[ ] Marsh (L)
[ ] Landslide/Slump (M)
[ ] Delta (N)
[ ] Desert Pavement (P)
[ ] Stream Bed (R)
[ ] Aeolian (S)
[ ] None (T)
[ ] Residual (U)

Describe: The soil is a coarse sand. According to Blake (1991:332-333), this site appears to be located within the *Inmo-Inmo, Occasionally Flooded* Soil Association. This soil type is located on alluvial fans at elevations of 4,100 to 5,200 ft., and is very gravelly loamy sand on 2-8 percent slopes.

*34. **Vegetation**

*a. **Life Zone** [ ] Arctic-Alpine (A) [ ] Hudsonian (B) [ ] Canadian (C) [ ] Transitional (D) [X] Upper Sonoran (E) [ ] Lower Sonoran (F)

*b. **Community:** **Primary On-Site** (O) **Secondary On-Site** (O) **Surrounding Site** (O)

Aspen (A)
Spruce-Fir (B)
Douglas Fir (C)
Alpine Tundra (D)
Ponderosa Pine (E)
Lodgepole Pine (F)
Other/Mixed Conifer (G)
Pinyon-Juniper Woodland (H)
Wet Meadow (I)
Dry Meadow (J)
Oak-Maple Shrub (K)
Riparian (L)
Grassland/Steppe (M)
Desert Lake Shore (N)
Shadscale Community (O)
Tall Sagebrush (P)
Low Sagebrush (Q)
Barren (R)
Marsh/Swamp (S)
Lake/Reservoir (T)
Agriculture (U)
Blackbrush (V)
Creosote Bush (Y)
Juniper-Sage (2)

Part A - Administrative Data

State No. 26Mn1665
Agency No.
Temp. No. KEC-590-22

Describe: This site is located in a shadscale vegetation community.

***35. Miscellaneous Text:**

References:

Blake, E. W. 1991. *Soil Survey of Mineral County Area, Nevada*. USDA Soil Conservation Service, Washington, D.C.

36. Comments/Continuations:

Part C - Historic Sites

State No. 26Mn1665
Agency No.
Temp. No. KEC-590-22

1. **Site Type:** Historic refuse scatter

*2. **Historic Theme(s):** None (A)

	CULTURAL AFFILIATION	DATING METHOD
*3. **Culture:**	European/American (EA)	Cross-Dating/Diag. Artifacts (F)

Describe: The artifacts identified in this dump are European-American, and are most likely related to either Babbitt or Hawthorne.

*4. **Oldest Date:** c. 1893 **Recent Date:** c. 1930s

How Determined? Tin can manufacturing technologies and a tin can product label.

5. **Site Dimensions:** 37 m (N/S) x 48 m (E/W) ***Area:** 943 sq. m

*6. **Surface Collection Method**
[X] None (A)
[ ] Grab Sample (B)
[ ] Designed Sample (C)
[ ] Complete Collection (D)

Sampling Method: N/A

*7. **Estimated Depth of Cultural Fill**
[X] Surface (A)
[ ] 0 - 20 cm (B)
[ ] 20 - 100 cm (C)
[ ] 100 cm + (D)
[ ] Fill noted but unknown (E)
[ ] Depth Suspected, but not tested (F)

How Estimated: *(If tested, show location on site map)* This site does not display the potential for meaningful cultural depth. A trowel scrape taken to 10 cm revealed no subsurface cultural materials.

*8. **Excavation Status** [ ] Excavated (A) [ ] Tested (B) [X] Unexcavated (C)

Testing Method: N/A

*9. **Summary of Artifacts and Debris** *(Refer to Guide for additional categories)*

[X] Glass (GL)
[X] Metal (ME)
[X] Nails (NC, NW)
[ ] Stove Parts (SP)
[ ] Insulators (IN)
[ ] Bone (BO)
[X] Ceramics (CS)
[ ] Fabric (FA)
[ ] Mining/Milling Machinery(MN)
[ ] Building Hardware (BH)
[ ] Leather (LE)
[ ] Wire (WI)
[X] Tin Cans
[ ] Mining Tools (MT)
[ ] Tar Paper (TP)
[ ] Ammunition (AM)
[ ] Wood (WD)
[ ] Rubber (RB)
[ ] Shoes (SO)
[X] Tobacco Tins (TO)
[ ] Domestic Items (DI)
[ ] Kitchen Utensils (KU)
[X] Car/Car Parts (CR)
[ ] Brick (BR)
[ ] Clock Parts (CT)

Describe: This site contains 37 historic artifacts, sparsely spread across the site. The average artifact density is less than 1 artifact/sq. m. The 37 artifacts include tin cans (upright pocket tobacco, vent hole, sanitary, hole-in-cap), amethyst and olive green glass fragments, a ceramic sherd, and metal items. The metal items include the metal liner from a box (**Metal 1**), a gear (**Metal 2**), two Mason Jar lids, a wire nail, the lid of a 55-gallon drum, and a metal trunk band. A complete inventory of observed historic materials was conducted. The Mason jar lids are knurled, a process in use since c. 1924 (Lief 1965:29). The lids measure 2½ inches (in.) and 2-1/16 in. diameter.

10. **Ceramic Artifacts:**

#	PASTE	GLAZE/SLIP	DECORATION	PATTERN	VESSEL FORM(S)
3	White/fine	Clear/white	None	None	

a. **Estimated Number of Ceramic Trademarks:** None

Describe: Three white improved earthenware plate sherds, no makers' marks.

11. **Glass:**

	#	MANUFACTURE	COLOR	FUNCTION	TRADEMARKS	DECORATION
Glass 1	15	Semi-ABM	Amethyst	Cosmetics	Body: "...SO. CAL.."	None
	1	Mold blown	Olive green	Champagne/Wine	None	None

Describe: [*Note:* The term mold blown is used to indicate that the bottle glass was blown into a mold for shape by either mouth or machine.] A total of 16 glass fragments were observed, 15 amethyst fragments from a semi- automatic bottle machine bottle, and one fragment from an olive green champagne bottle. Semi-automatic bottle machines appeared in c. 1893 with the Arbogast bottle machine and

Part C - Historic Sites

State No. 26Mn1665
Agency No.
Temp. No. KEC-590-22

c. 1899 with the Ashley bottle machine, both of which were used to c. 1938 (Miller and Sullivan 1981:2-3; Fike 1987:4-5). These machines produced wide-mouth bottles and jars only. The amethyst color results from using manganese dioxide as a decolorizing agent. Although generally held that there is a general date range for the use of manganese dioxide (IMACS 1992:472.7; Jones and Sullivan 1989:13-14; Miller and McNichol 2002:4; Miller and Pacey 1985:19(1)44-45; Munsey 1970:55; Newman 1970:4:74, Figure 3), Lockhart (2006:40(2)50-54) suggests different glass items and bottle types were made with the agent at different times through this period. This jar may fall under the pharmaceutical bottle glass umbrella, providing a date range of c. 1893 to c. 1924, or it may have been made only in 1893. That it was made by semi-automatic machine is a given because these machines did not have a mechanical connection to the crucible or tank where the glass was made, so this would allow for the continued use of manganese dioxide, which requires more oxygen than can be applied to a tank used by the Owens automatic bottle machine (Miller and Pacey 1985:19(1)44-45).

12. Maximum Density - #/sq. m (glass and ceramics): 3/sq. m

13. Tin Cans: [*Note:* The measurements follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.]

	#	TYPE	OPENING	SIZE	MODIFIED	LABEL/MARK	FUNCTION
Tin Can 1	1	Hole-in-cap	Key-wind side strip	~300 x 301 x ~207	No	None	Meat
	3	Upright pocket	External friction hinge lid	300 x 406 x 015	No	None	Tobacco
	7	Sanitary	C-cut, bayonet, knife cut around, rotary	Various	No	None	Fruit/Soup/Veg.
	4	Vent hole	2x ice pick punch	300 x 406	No	None	Evaporated milk
	2	Lid	Key-wind side strip, removable lid	405 d	No	"TRY / TREE / TEA"; "ESTB 22"	Coffee
	1	External friction	Removable lid	508 h (heavily corroded)	No	None	Dry product

Describe: Tin Can 1: This can has an internal rolled seam and crimped ends and has a slightly tapered shape. Key-wind side strips have been used as the method of opening meat tins since c. 1895 (Rock 1989:78-79). Since this is a hole-in-cap meat tin, it may be an import (Edwards et al. 1990:139-140). A suggested date range for this can is c. 1904 to c. 1940 (Rock 1989:16-17, 49-50,58, 61-62). Upright pocket tobacco tins with wire pin hinged lids date from c. 1901 to c. 1972 (Cleeland 1984:22; Rock 1989:150-152). Sanitary cans were introduced in c. 1904 (Rock 1989:52, 61-62). Rotary openers were invented in 1870, but were not used until c. 1904. The bayonet can opener dates from c. 1900, with common use beginning in 1906 (Rock 1989:188-190). The vent hole cans have been identified as a No. 1 Tall, dating from c. 1914/c. 1920 to c. 1931 (Bitting 1937:751; Rock 1984:18(2)101,Table 1; 1987:21); or as a Type 9, with a date range of 1915-1930 (Simonis 1997). The next item is an external friction lid created by using a key-wind side strip to open the can. The embossed advertisement was used by *MJB* (M. J. Brandenstein & Company) referring to their imported Japanese tea (Edwards et al. 1990:143-144). This coffee was vacuum packed and was probably a 1 pound size. According to Rock (1989:91), this can had an internal friction type lid, a depression for the key on it, and was sold in the mid 1920s. Cans depicted in Pulati (1973:60) for *MJB* coffee suggest an end date of c. 1930. The last can has an internal rolled seam and crimped end. This suggests a date range of c. 1904 to present.

***14. Landscape and Constructed Features (locate on site map) -** *(See Guide for additional categories)*

[ ] Trail/Road (TR)
[ ] Tailings (MT, ML)
[ ] Rock Alignment (RA)
[ ] Cairn (AI)
[ ] Dump (DU)
[ ] Depression (DE)
[ ] Cemetery/Burial (CB)
[ ] Prospect Hole (PH)
[ ] Dam, Earthen (DA)
[ ] Ditch (DI)
[ ] Inscriptions (IN)
[ ] Hearth/Campfire (HE)
[ ] Quarry (QU)
[ ] Other (OT)

Describe: None

***15. Buildings and Structures (locate on site map):**

#	MATERIAL	TYPE

Describe: None

Part C - Historic Sites

State No. 26Mn1665
Agency No.
Temp. No. KEC-590-22

16. Comments/Continuations - *(Please make note of any Historic Record searches performed (for example - County Records, General Land Office, Historical Society, Land Management Agency Records, Oral Histories/Interviews)*

References:

Bitting, A. W. 1937. *Appertizing or The Art of Canning; Its History and Development.* The Trade Pressroom, San Francisco, California.

Cleeland, T. A. (compiler). 1984. *Historic Artifact Dating Guide.* Archaeology Laboratory, Northern Arizona University, Flagstaff, Arizona.

Edwards, S. R., M. E. Kimball, and M. E. Roberson. 1990. *The Archaeological Testing and Evaluation of the "Fairview Mining Complex" Site CRNV61-360/26NY5989 for Round Mountain Gold Corporation, Round Mountain, Nye County, Nevada.* Division of Anthropological Studies, Environmental Research Center, Barrick Museum of Natural History, University of Nevada-Las Vegas. DAS Report 5-126-1b. On file, USDI Bureau of Land Management, Tonopah Field Office, Tonopah, Nevada, Report No. CRR6-1301-1.

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Miller, G. L., and T. McNichol. 2002. *Dates for Suction Scarred Bottoms: Chronological Changes in Owens Machine-made Bottles.* Paper presented at the 2002 Society for Historical Archaeology meeting, Mobile, Alabama.

Miller, G. L., and A. Pacey. 1985. Impact of Mechanization in the Glass Container Industry: The Dominion Glass Company of Montreal, a Case Study. *Historical Archaeology* 19(1):38-50.

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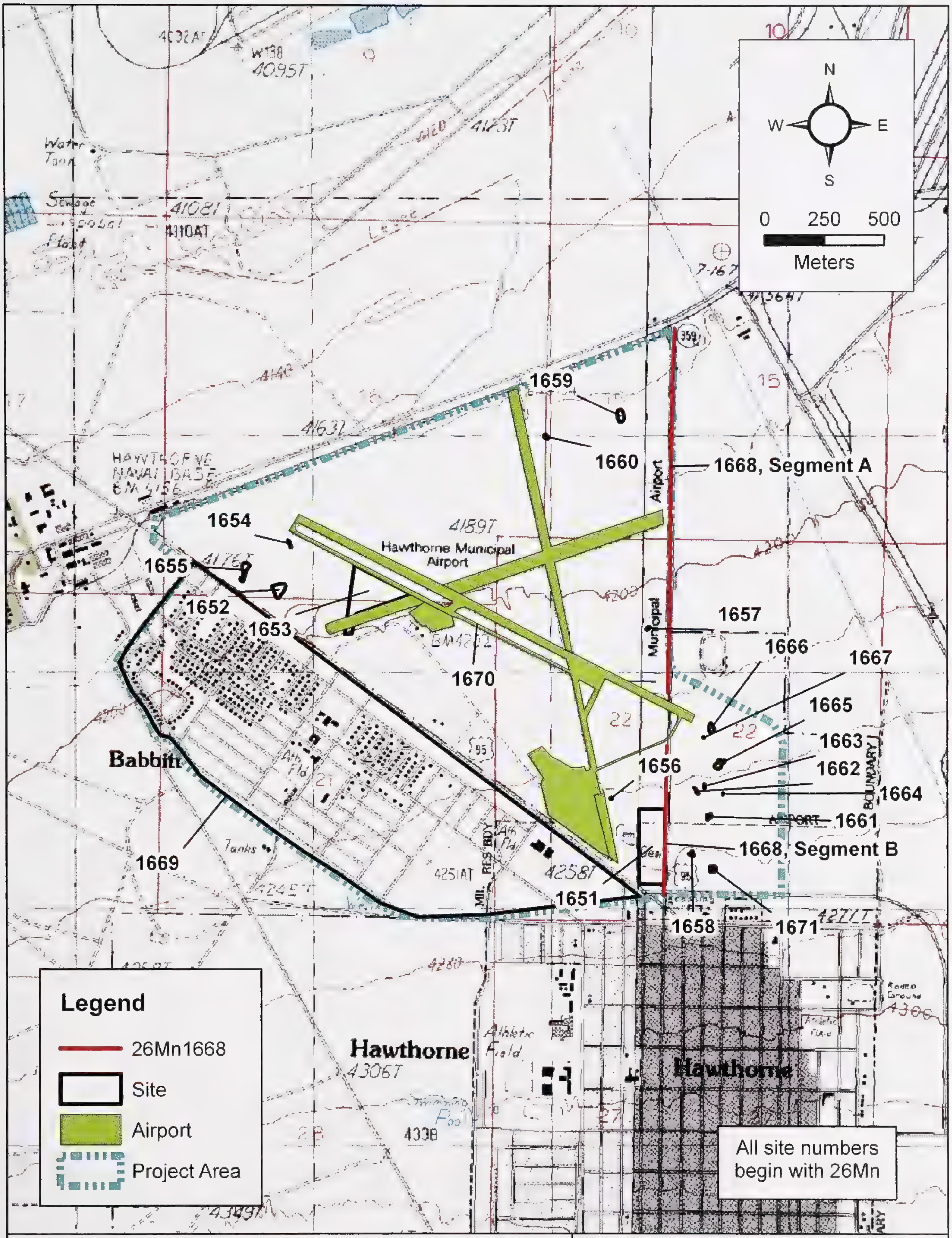
Pulati, E. 1973. *Illustrated Tin Container Guide.* Privately published, Santa Ana, California.

Rock, J. T. 1984 . Cans in the Countryside. *Historical Archaeology* 18(2):97-111.

--- 1987. *A Brief Commentary on Cans.* Ms. on file, USDA Forest Service, Klamath National Forest, Yreka, California.

— 1989 . *Tin Canisters: Their Identification.* Ms. on file, USDA Forest Service, Klamath National Forest, Yreka, California.

Simonis, D. 1997. *Simonis Can Guide.* USDI Bureau of Land Management, Kingman Field Office, Kingman, Arizona.



Site Location Map: Site No. 26Mn1665 (KEC-590-22)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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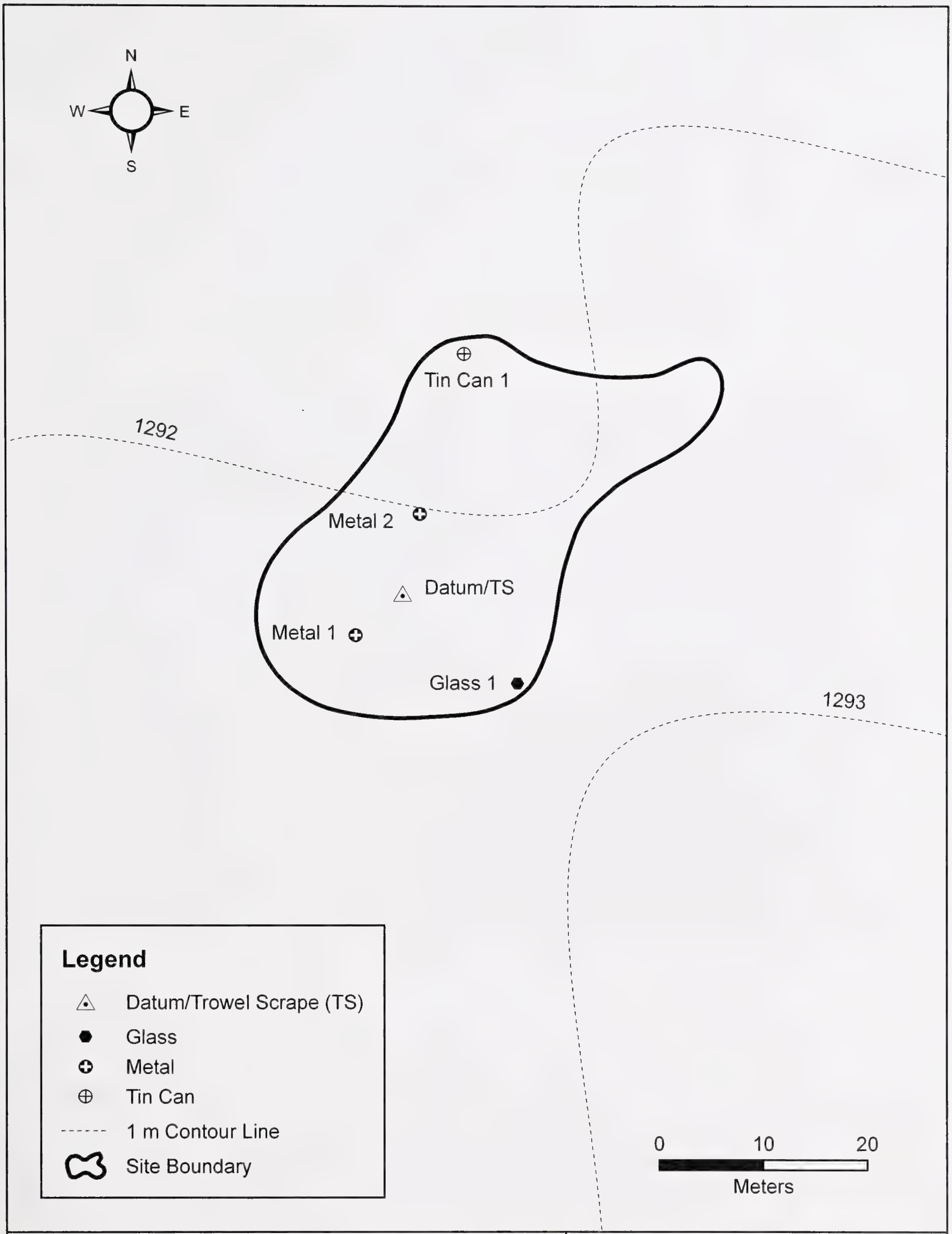

Site Sketch Map: Site No. 26Mn1665 (KEC-590-22)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-26-07

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Photograph 1 (IMACS) Site 26Mn1665 (KEC-590-22). Site overview (84°). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible _X_ Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

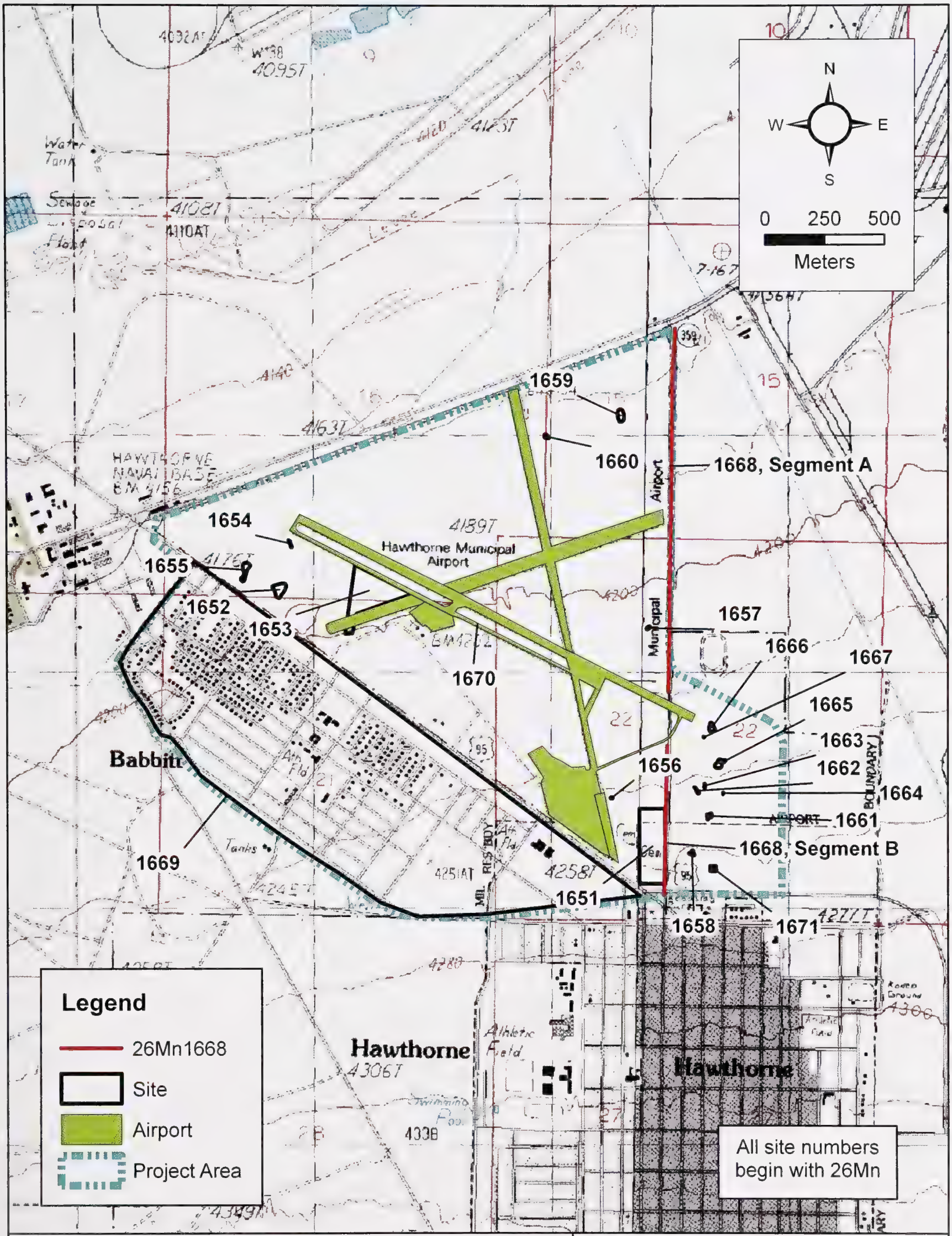
*1. **State Site No.:** 26Mn1666 *2. **Agency Site No.:** 3. **Temp Site No.:** KEC-590-24
4. **Project Name:** Hawthorne Survey (KEC-590) 5. **NSM Report Number:**
*6. **Agency Report Number:** **County:** Mineral
7. **Site/Property Name:** None
8. **Site Class:** Prehistoric _X_ Historic __ **Historic Theme/Affiliation:** None (A); Unknown Aboriginal (Z)
Site Area: 40 m N/S x 25 m E/W (Area: 688 sq. m) **Age:** Unknown (Z)
Dating Method: None (A) **Depth of Cultural Fill:** Surface (A)

9. **Site Description:** This site is a small prehistoric lithic scatter, located on a flat valley floor south of Walker Lake and north of Hawthorne. This site has 28 obsidian flakes. These include 15 biface thinning and 13 pressure flakes. The densest concentration of flakes occurs in the southwest quadrant, where nine flakes were noted in one sq. meter. The high number of biface thinning and pressure flakes suggests that this site represents a single tool re-sharpening or re-working event. No prehistoric formed tools, temporally diagnostic artifacts, or features were observed. A trowel scrape in the approximate center of the site revealed coarse, sandy sediments. This location is also the site datum. There was no indication of subsurface cultural materials.

National Register Significance This site is a small prehistoric lithic scatter, with no tools and no features. This site is not characterized by an abundance or diversity of prehistoric lithic artifacts; does not contain temporally diagnostic artifacts, has no prehistoric features, and appears entirely confined to the surface. Consequently, it does not contain data addressing the prehistoric research themes and associated questions developed for the region. Therefore, this site is recommended as not significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, d).

*10. **Elevation:** 4,139 ft. *11. **UTM Grid Zone (NAD 1983):** Zone 11 358596 **mE** 4266949 **mN** [Datum]
*12. **Township/Range** (To quarter section only): SE¼ of Section 22, T.8N., R.30E.
*13. **Meridian:** Mt. Diablo (7)
*14. **Map Reference:** *Hawthorne East, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
*15. **Land Owner:** Municipal *16. **Federal Administrative Unit:** N/A
*17. **Distance to Permanent Water:** 74 x 100 meters NW **Type:** (A) spring __ (B) stream/river__ (C) lake _X_ (D) other__ Walker Lake
*18. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
*19. **Topographic Location/Primary Landform:** Valley (E) *20. **Depositional Context:** Flood Plain (K)
*21. **Vegetation Community** (primary only): Shadscale community (O)
22. **Photographs** (Roll & Frame Nos.): KEC-590 Roll 4, Frame 24
23. **Recorded by:** N. Rhyne **Date:** June 21, 2007
*24. **Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)



All site numbers begin with 26Mn

Site Location Map: Site No. 26Mn1666 (KEC-590-24)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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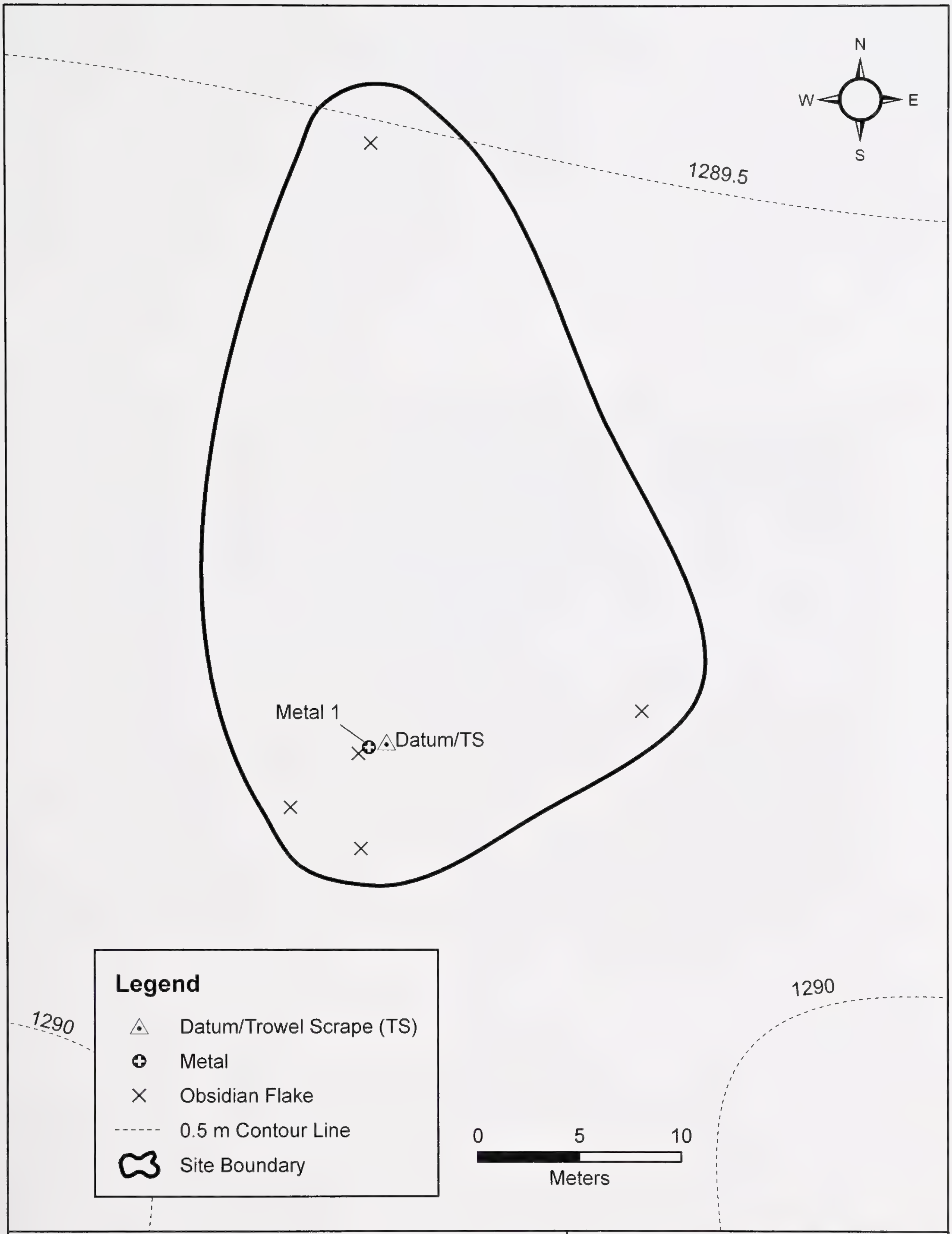

Site Sketch Map: Site No. 26Mn1666 (KEC-590-24)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-26-07

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Photograph 1 (IMACS) Site 26Mn1666 (KEC-590-24). Flake scatter site overview (329°). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible_X_ Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

*1. **State Site No.:** 26Mn1667 *2. **Agency Site No.:** 3. **Temp Site No.:** KEC-590-26
4. **Project Name:** Hawthorne Survey (KEC-590) 5. **NSM Report Number:**
*6. **Agency Report Number:** **County:** Mineral
7. **Site/Property Name:** None
8. **Site Class:** Prehistoric __ Historic _X_ **Historic Theme/Affiliation:** None; European/American (EA)
Site Area: 5 m N/S x 2 m E/W (Area: 6 sq. m) **Age:** c. 1910s to c. 1950s
Dating Method: Cross-Dating/Diag. Artifacts (F) **Depth of Cultural Fill:** Surface (A)

9. **Site Description:** This site is a very small, sparse historic refuse scatter, located on a flat valley floor north of Hawthorne, south of Walker Lake. The scatter consists of a crushed log cabin syrup tin, a white improved earthenware ceramic sherd, a wire nail, amber and aqua glass fragments, and a shell button. The site is immediately adjacent to site 26Mn1668, an historic road. A complete inventory of artifacts was done. No features were associated with this site. The site datum and a 10cm^3 trowel scrape are located in the approximate center of the scatter. The trowel scrape yielded sandy silty soils, and had no subsurface cultural materials.

National Register Significance: This site is a very small scatter of historic refuse probably representing a single roadside dumping episode, with a suggested date range of c. 1910s to c. 1950s. While this site is probably related to the towns of Babbitt and Hawthorne, and/or possibly U. S. Highway 95, all of which occur less than one mile distant, no specific historic event(s) can be assigned to this site. This site cannot be definitively associated with the life of an important historic figure(s), nor does it contain outstanding engineering features. This site is not identified on historic maps or indices of the area. Based on its lack of contextual information, its surficial nature, lack of associated features, and its relatively limited numbers and diversity of artifacts, this site does not have the potential to address historic research themes or associated questions developed for the region. Therefore, this site is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

*10. **Elevation:** 4,152 ft. *11. **UTM Grid Zone (NAD 1983):** Zone 11 358564 **mE** 4266921 **mN** [Datum]
*12. **Township/Range** (To quarter section only): SE¼ of Section 22, T.8N., R.30E.
*13. **Meridian:** Mt. Diablo (7)
*14. **Map Reference:** *Hawthorne East, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
*15. **Land Owner:** Municipal *16. **Federal Administrative Unit:** N/A
*17. **Distance to Permanent Water:** 75 x 100 m NW, Walker Lake **Type:** (A) spring __ (B) stream/river__ (C) lake _X_ (D) other__
*18. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
*19. **Topographic Location/Primary Landform:** Valley (E) *20. **Depositional Context:** Flood Plain (K)
*21. **Vegetation Community** (primary only): Shadscale Community (O)
22. **Photographs** (Roll & Frame Nos.): KEC-590 Roll 4, Frame 11-14
23. **Recorded by:** N. Rhyne **Date:** June 21, 2007
*24. **Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

Artifact Summary: Note: The measurements of the tin cans follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2-6/16 in. x 3-5/16 in. x 1-4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.

Count/density	Material	Artifact/code	Comments
2	Glass (GL)	Bottle (Z)	Two small fragments of bottle glass, one amber and one aqua.
1	Metal (ME)	Tin can (TZ)	**Tin can 1:** *Log Cabin* syrup tin, with an unthreaded spout, approximately 702 x 700 x 308, too crushed for identifying features. Non-threaded closures were present from c. 1909 to c. 1950s, with promotional replicas in the 1970s and an anniversary tin in 1987 (Rock 1989:114-121).
1	Shell	Button (BU)	One shell button, 2-hole sew-thru in either a fisheye or roundeye, 7/16-inch diameter, or 18 lignes (lines), used for shirts, dresses and other clothing. The color of the shell suggests it may be a freshwater shell, which had a peak period of use from 1888 to 1930 (Pool 1991:6-7, 10-11).
1	Ceramic (CS)	Sherd (Z)	One white improved earthenware sherd, unknown vessel, no maker's mark.
1	Metal (ME)	Nails - Wire (NW)	One wire nail. Large scale production began in c. 1886, with domination of the market by 1895-1900 (IMACS 1992:470.2-3).

Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)

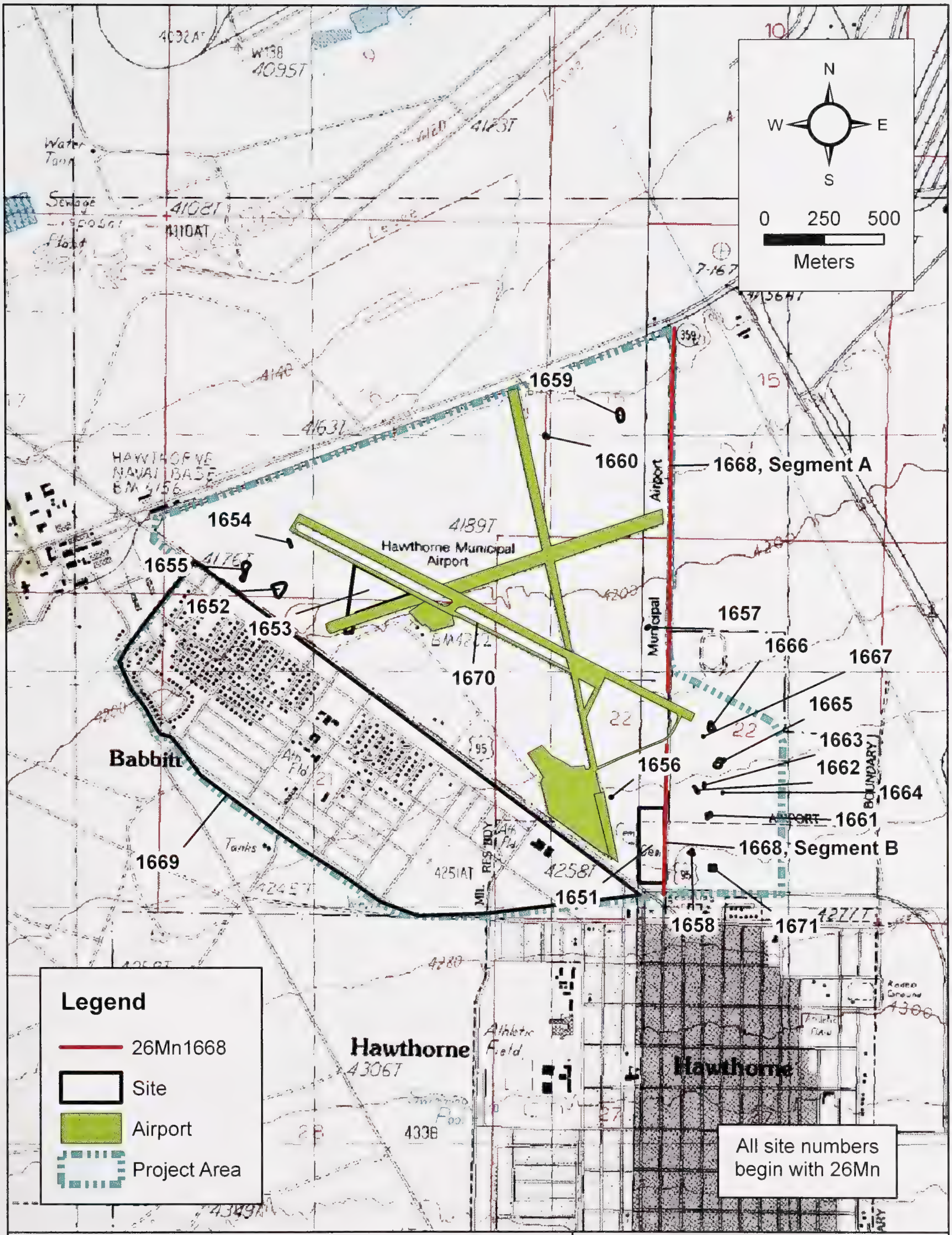
State Site No.: 26Mn1667 **Agency Site No.:** **Temp Site No.:** KEC-590-26

References:

Intermountain Antiquities Computer System (IMACS). 1992. *User's Guide: Instructions and Computer Codes for Use with the IMACS Site Form.* Revised. University of Utah, Bureau of Land Management, and the U.S. Forest Service.

Pool, J. C. 1991. *An Overview of Nineteenth and Twentieth Century Buttons.* Research Notes Historic Sites and Materials 1. Texas Parks and Wildlife Department, Austin, Texas.

Rock, J. T. 1989. *Tin Canisters: Their Identification.* Ms. on file, USDA Forest Service, Klamath National Forest, Yreka, California.



All site numbers begin with 26Mn

Site Location Map: Site No. 26Mn1667 (KEC-590-26)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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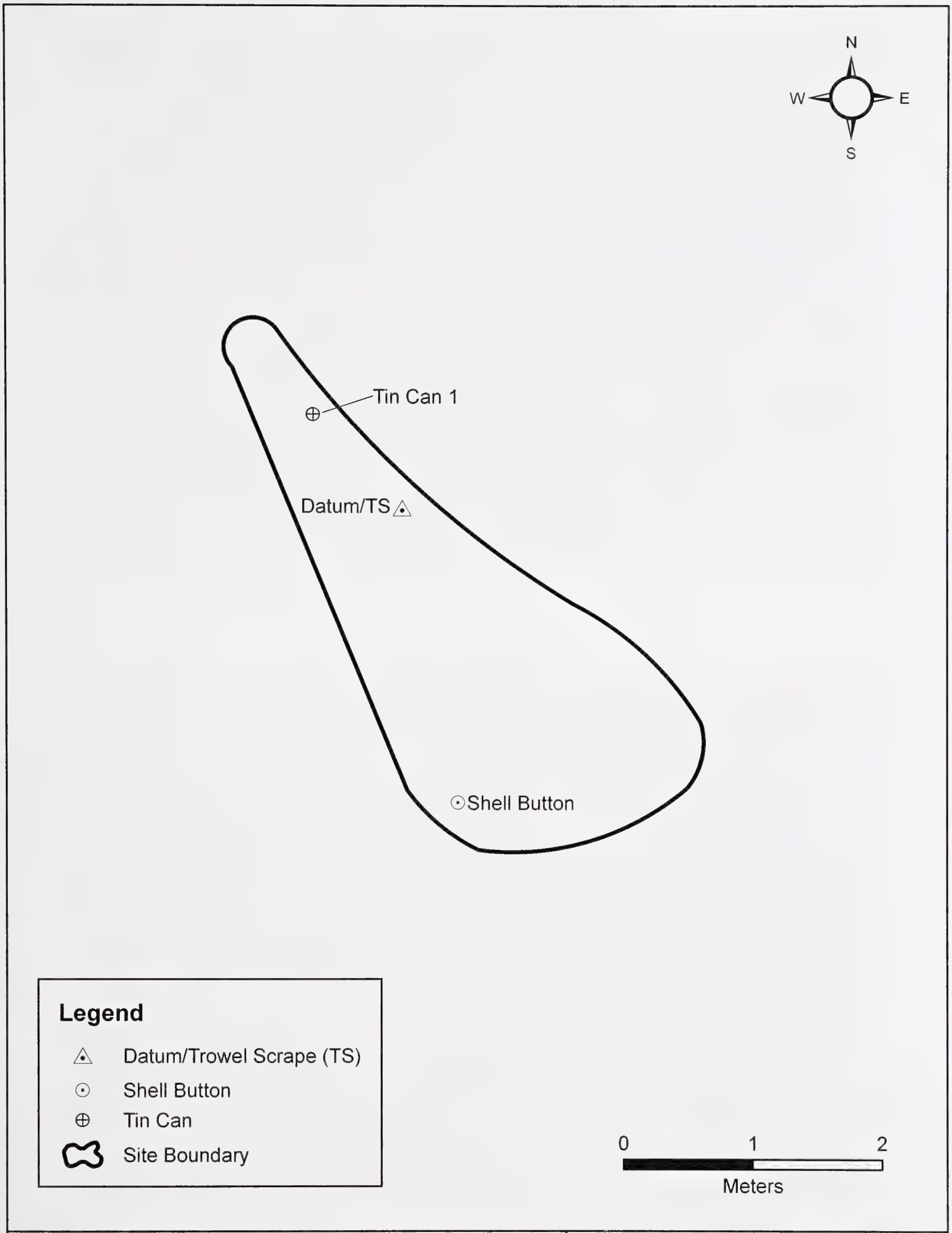

Site Sketch Map: Site No. 26Mn1667 (KEC-590-26)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-26-07

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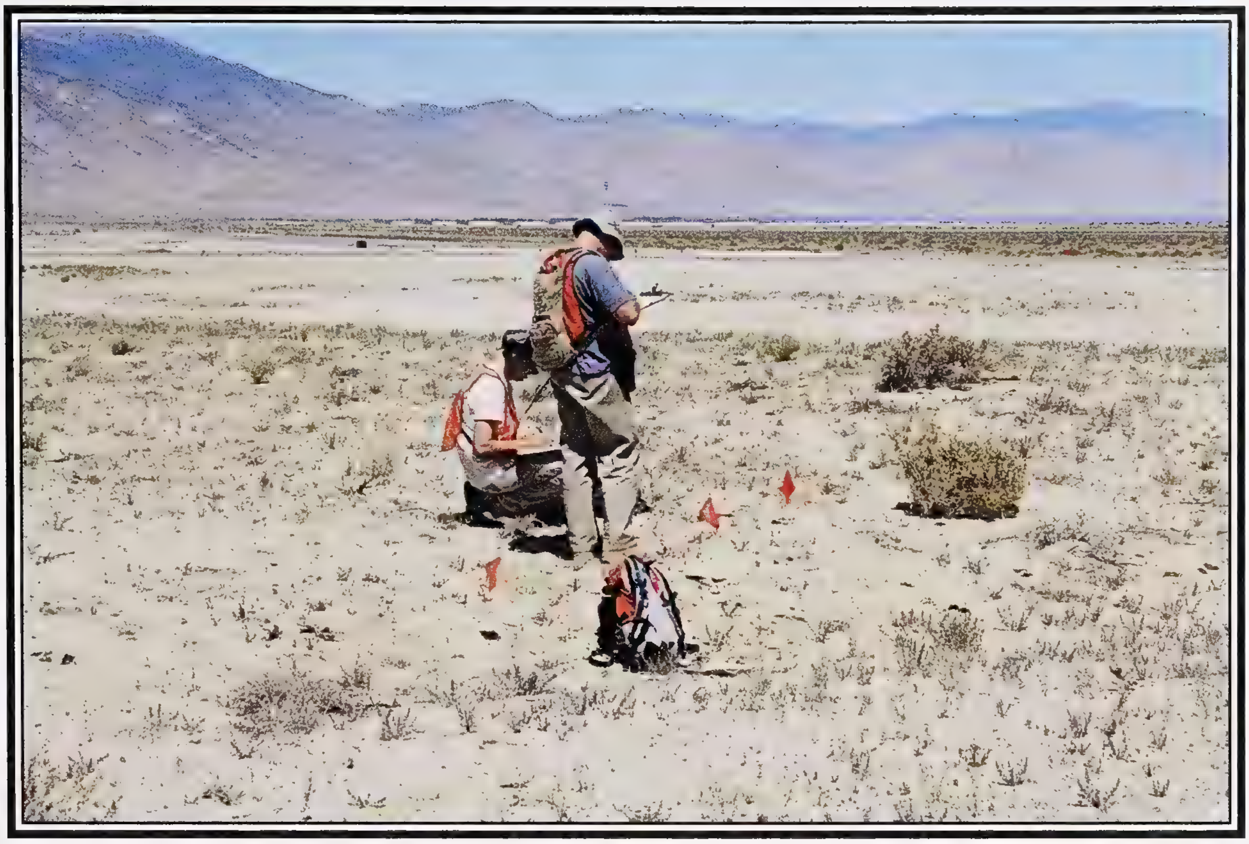
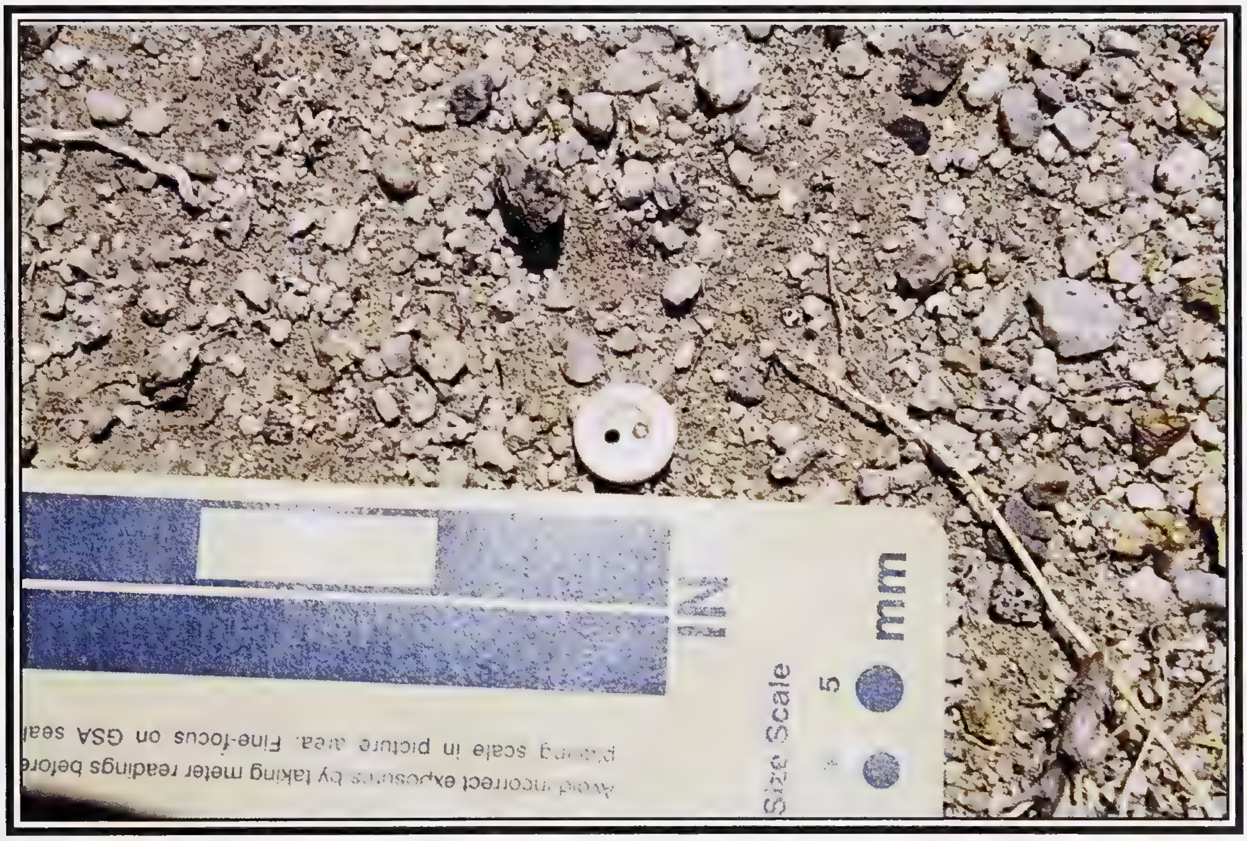


Photograph 1 (IMACS) Site 26Mn1667 (KEC-590-26). Site overview (316°). Kautz Environmental Consultants, Inc., 2007.


IN
mm
Size Scale
5
Avoid incorrect exposures by taking meter readings before
placing scale in picture area. Fine-focus on GSA seal

Photograph 2 (IMACS) Site 26Mn1667 (KEC-590-26). Shell button, side 1 (Detail). Kautz Environmental Consultants, Inc., 2007.

Eligibility: Unevaluated __ Not eligible _X_ Eligible __ Criteria: A __ B __ C __ D __ by: KEC, Inc. concur:

NEVADA SHORT FORM

Administrative and Environmental Data

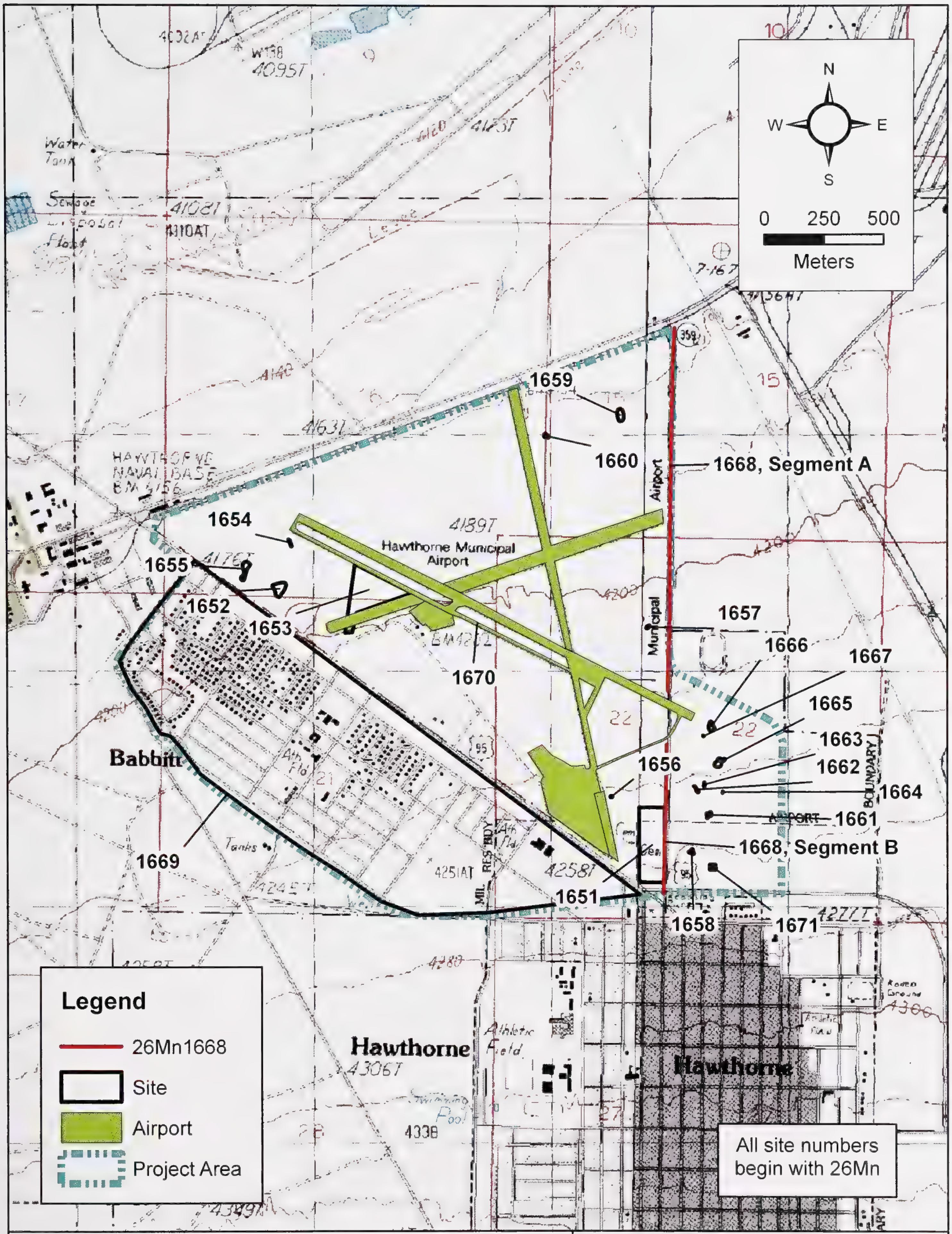
*1. **State Site No.:** 26Mn1668 *2. **Agency Site No.:** 3. **Temp Site No.:** KEC-590-28
4. **Project Name:** Hawthorne Survey (KEC-590) 5. **NSM Report Number:**
*6. **Agency Report Number:** **County:** Mineral
7. **Site/Property Name:** None
8. **Site Class:** Prehistoric __ Historic _X_ **Historic Theme/Affiliation:** Transportation (TR); European/American (EA)
Site Area: 2170 m N/S x 8 m E/W (Area: 17,360 sq. m) **Age:** c. 1921
Dating Method: Historical Record (I) **Depth of Cultural Fill:** Surface (A)

9. **Site Description:** This site is a segment of an historic road depicted on the *Hawthome* (1911, Rp. 1921) topographic quadrangle for the project vicinity. The road traverses south from Walker Lake across the lakebed to the town of Hawthorne, Nevada, and parallels the eastern edge of the current project area. This road segment is recorded in two portions, north and south. Both the north and south portions are 26 foot wide paved roads, and 5,048 and 2,070 feet long, respectively. They are separated by one of the Hawthorne Municipal Airport runways and its associated graded pad, which has destroyed th central portion of the road. No indication of the original dirt route is extant. The 1911 (1921) *Hawthome* topographic map is the earliest map of the area on which this road appears.

National Register Significance: This site is a segment of an historic road between Walker Lake and Hawthorne, which appears on historic maps dating as early as 1921. The road segment's integrity has been severely compromised by paving on its northern and southern portions, and by construction of runways for the Hawthorne Municipal Airport, which bisect the road. Only one small portion remains relatively undisturbed. This road is not mentioned in the historic record for the area as an important transportation route, and is not directly associated with an important historic figure. The road does not contain outstanding engineering features, and does not have the potential to yield information addressing historic research themes and associated questions developed for the region. Therefore, this road segment is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP) under any of its four criteria (a, b, c, or d).

*10. **Elevation:** 4,260 ft. *11. **UTM Grid Zone (NAD 1983):** Zone 11
358446 **mE** 4268649 **mN** [N end Segment A]
358416 **mE** 4267100 **mN** [S end Segment A]
358410 **mE** 4266885 **mN** [N end Segment B]
358397 **mE** 4266253 **mN** [S end Segment B]
*12. **Township/Range** (To quarter section only): SW¼ of Section 15, and W½ of Section 22, T.8N., R.30E.
*13. **Meridian:** Mt. Diablo (7)
*14. **Map Reference:** *Hawthome East, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)
*15. **Land Owner:** Municipal *16. **Federal Administrative Unit:** N/A
*17. **Distance to Permanent Water:** 70 x 100 meters NW **Type:** (A) spring __ (B) stream/river__ (C) lake _X_ (D) other__
Walker Lake
*18. **Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)
*19. **Topographic Location/Primary Landform:** Valley (E) *20. **Depositional Context:** Flood Plain (K)
*21. **Vegetation Community** (primary only): Shadscale community (O)
22. **Photographs** (Roll & Frame Nos.): KEC-590 Roll 4, Frame 15-17
23. **Recorded by:** N. Rhyne **Date:** June 21, 2007
*24. **Survey Organization:** Kautz Environmental Consultants, Inc., 5200 Neil Road, Suite 200, Reno, Nevada 89502 (KF)

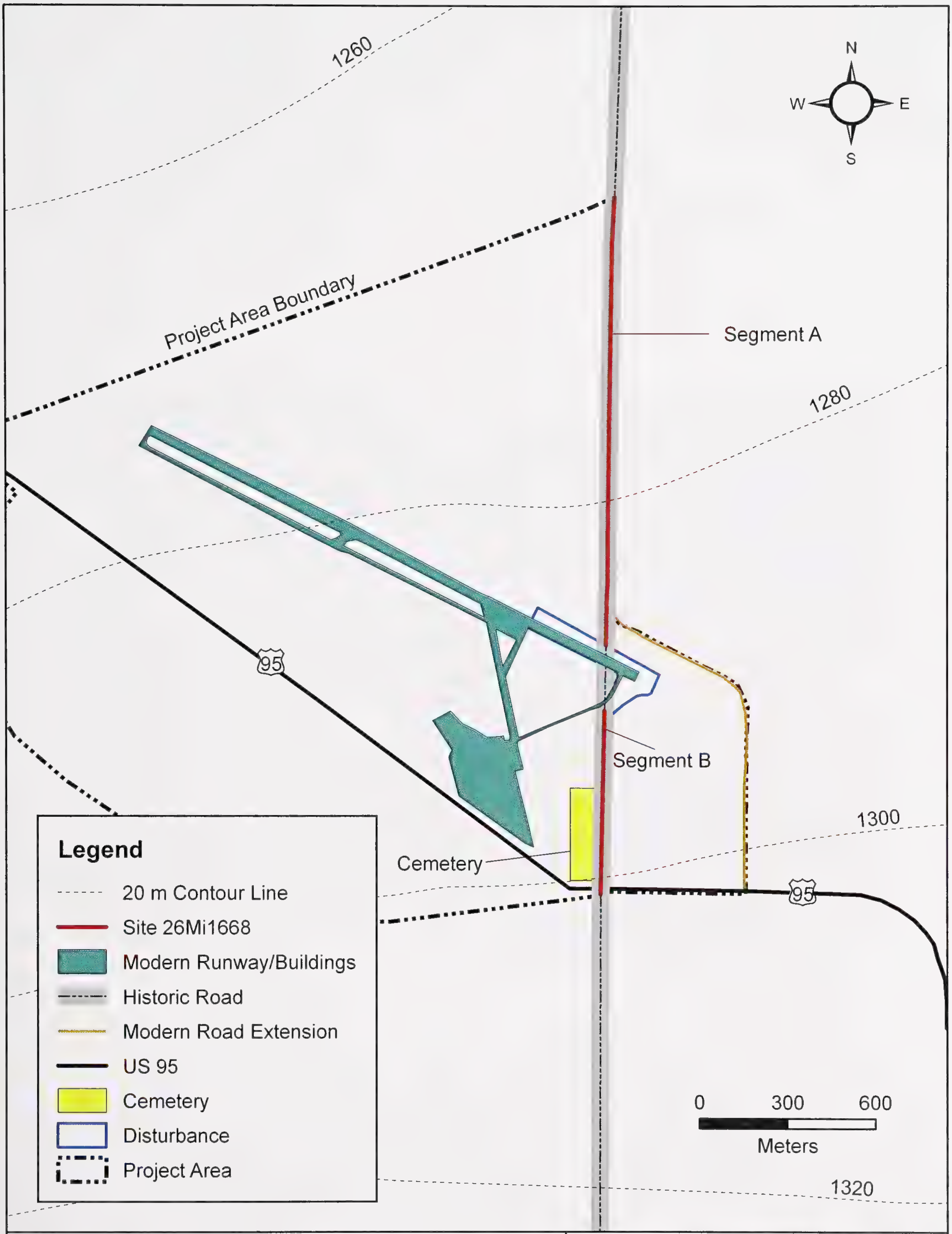
Attachments: 7.5 Minute Location Map; Site Map; Site Photograph(s)



Site Location Map: Site No. 26Mn1668 (KEC-590-28)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

kautz
ENVIRONMENTAL CONSULTANTS, INC.



Site Sketch Map: Site No. 26Mn1668 (KEC-590-28)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 07-19-07

kautz
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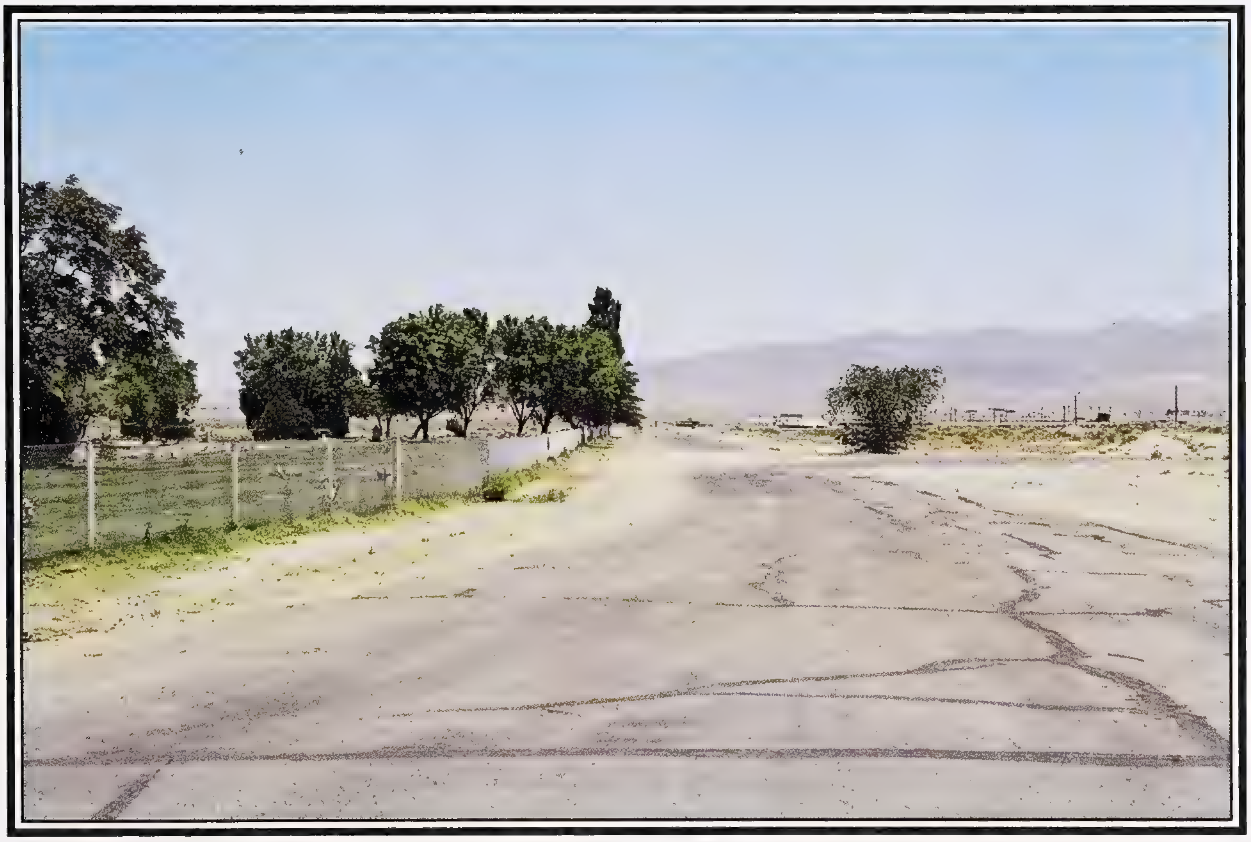

Photograph 1 (IMACS) Site 26Mn1668 (KEC-590-28). Site overview (353°). Kautz Environmental Consultants, Inc., 2007.

IMACS SITE FORM
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

Form approved for use by
BLM - Utah, Idaho, Wyoming, Nevada
Division of State History - Utah, Wyoming
USFS - Intermountain Region
NPS - Utah, Wyoming

***1. State No.** 26Mn1669
***2. Agency No.**
3. Temp. No. KEC-590-30

Part A - Administrative Data

4. **State:** Nevada **County:** Mineral

5. **Project:** Hawthorne Survey (KEC-590)

*6. **Report No.:**

7. **Site Name / Property Name:** Babbitt

8. **Class:** [ ] Prehistoric [X] Historic [ ] Paleontologic [ ] Ethnographic

9. **Site Type:** Historic townsite (Babbitt, Nevada)

*10. **Elevation:** 4136 ft.

*11. **UTM Grid** (NAD 1983) **Zone** 11 356896 **mE** 4266988 **mN** [Datum]

*12. SW¼ of the SW¼ of Section 16; the WE½ of the NE¼ of the NE¼ of Section 20; NW¼, and the SE¼, and the NW¼, SW¼ and SE¼ of the NE¼, and the N½ of the SW¼, all of Section 21; and the S½ of the SE¼ of Section 22, all of T.8N., R.30E.

*13. **Meridian:** Mt. Diablo (7)

*14. **Map Reference:** *Hawthorne West, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)

15. **Aerial Photo:** None

16. **Location and Access:** Head south on Highway 95 from Fallon, Nevada. Continue roughly 80 miles toward Hawthorne, Nevada. The town site of Babbitt is on the west side of Highway 95 about one mile before entering Hawthorne.

*17. **Land Owner:** Municipal

*18. **Federal Administrative Units:** N/A

*19. **Location of Curated Materials:** N/A

20. **Site Description:** This site is the townsite of Babbitt, Nevada, located along US Highway 95, south of Walker Lake, immediately north of Hawthorne, Nevada. The site is located on the flat valley floor that is the former lakebed of Walker Lake. The site consists of street/road remnants in various stages of use/disrepair, structure foundations, a few standing structures, and associated refuse. The most significant impact to the site include the removal/razing of the vast majority of its buildings over the last few decades, general lack of maintenance of infrastructure elements, such as streets/roads and curbs, and modern use and alteration of portions of the townsite.

Originally, the town site consisted of a square grid-system of streets/roads, up to 579 duplexes and 80-100 single-family residences, and other community buildings including retail and grocery stores, personal services, recreation areas, and public buildings. There were two floor plans in the residential section of town for the duplexes, including either two two-bedroom units, or one-bedroom/three-bedroom units. Today, the roads and curb/sidewalk networks have fallen into disrepair, the pavement is in varying stages of disintegration, all of the duplexes have been removed or destroyed, and the few remaining buildings have fallen into disrepair, or have been renovated and altered for re-use. Ninety-two concrete foundations are all that are left of the duplexes, with associated rubbish.

*21. **Site Condition:** [ ] Excellent (A) [ ] Good (B) [ ] Fair (C) [X] Poor (D) [ ] Inundated (E) [ ] Destroyed (F)

List of Attachments:
[ ] Part B
[X] Part C
[ ] Part E
[X] Topo Map
[X] Site Sketch
[X] Photos
[X] Artifact/Feature Sketch
[ ] Continuation Sheets
[ ] Other:

Part A - Administrative Data

State No. 26Mn1669
Agency No. ______
Temp. No. KEC-590-30

***22. Impact Agent(s):** Demolition (DM), Major Building Alteration (MA), Structural Decay (SD). A modern RV park is now located on what used to be the United States Air Force Radar Site which once served as the ‘buffer zone’ between the white and colored sections of town. A modern grocery stores and a bank are located on the easternmost portion of the townsite. In addition, significant renovations and additions have been made to the school (see accompanying Historic Resources Inventory forms).

***23. National Register Status:** [ ] Significant (C) [X] Non-Significant (D) [ ] Unevaluated (Z)

Justify: The historic town of Babbitt is an element of the historic/modern Hawthorne Naval Ammunition Depot/Army Ammunition Plant (Koval 1989; Rebecca Palmer, personal communication 2007). The Naval Ammunition Depot has been nominated a significant historic district under NRHP criteria a and c, with National, Statewide, and Local significance. The Depot is significant under Criterion c as a military district, built for ‘state-of-the-art’ ammunition storage in the late 1920s; it is the largest depot of its kind in the world; it has a unique landscape; and it contains the largest and most complete collection of twentieth century military cultural resources in the state of Nevada. Under Criterion a, the Depot played a major role in World War II as *the* ammunition depot for the Pacific War. Additionally, it is the oldest 20th century military reservation in Nevada, and it played a significant role in the development of the town of Hawthorne. Koval (1989:33) suggests two periods of significance for the District. These include the period during which the depot was built (1928-1931), and during World War II (1940-1945).

The town of Babbitt was built in the early 1940s to house civilian depot employees and their families during World War II. It is recommended as a contributing element to the Hawthorne Naval Ammunition Depot Historic District for its role in the development of that District during its second period of significance, from 1940-1945 (Criterion a). The town of Babbitt is also recommended as a significant resource, eligible for nomination to the National Register, as an individual entity, outside the context of the Hawthorne Naval Ammunition Depot Historic District. Babbitt represents a federally-sanctioned, racially-segregated community, whose segregation persisted informally into the 1970s, after most of the town was abandoned. Babbitt’s development as a racially-segregated community had implications for the development of the depot, for the local community of Hawthorne, and the state of Nevada, especially concerned with the Civil rights Movement of the 1950s-1970s.

Today, very little remains of Babbitt. The last residents left the town in 1987. Since the 1970s to the present all of its buildings have been razed, removed, or significantly altered. While some aspects of Babbitt, such as streets, curbs, and concrete foundations, have retained their integrity of location, the majority of the buildings have not. Removal of the duplexes, and loss of the sycamore and cottonwood trees that once lined the residential streets, has produced a loss of the *sense* of Babbitt as a community (i.e., its integrity of feeling, setting, and association). Additionally, removal of many of the buildings, and significant alterations to those still remaining, have significantly compromised the integrity of workmanship, design, and materials. Due to these impacts, and the subsequent loss of all aspects of integrity, Babbitt is recommended as not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP), either as an archaeological site, or as a contributing element to the Hawthorne Naval Ammunition Depot Historic District.

24. Photos: KEC-590 Roll 4, Frames 18-36, E; Roll 5, Frames 4-33; Roll 6, Frames 2-18

25. Recorded by: R. Breitling, N. Rhyne

***26. Survey Organization:** Kautz Environmental Consultants, Inc., Reno, Nevada (KF)

27. Assisting Crew Members: O. Lund, R. Whalley, B. Rodela ***28. Survey Date:** June 21, 2007

***29. Slope:** 0 (Degrees) **Aspect:** 0 (Degrees)

***30. Distance to Permanent Water:** 55 x 100 Meters NW

*Type of Water Source [ ] Spring/Seep (A) [ ] Stream/River (B) [X] Lake (C) [ ] Other (D)
Name of Water Source: Walker Lake

***31. Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)

32. Topographic Location** - ***See Guide for additional information

PRIMARY LANDFORM
[ ] Mountain spine (A)
[ ] Hill (B)
[ ] Tableland/Mesa (C)
[ ] Ridge (D)
[X] Valley (E)
[ ] Alluvial fan (A)
[ ] Alcove/Rock Shelter (B)
[ ] Arroyo (C)
[ ] Basin (D)
[ ] Cave (E)

SECONDARY LANDFORM
[ ] Dune (I)
[X] Floodplain (J)
[ ] Ledge (K)
[ ] Mesa/Butte (L)
[ ] Playa (M)
[ ] Slope (Q)
[ ] Terrace/Bench (R)
[ ] Talus Slope (S)
[ ] Island (T)
[ ] Outcrop (U)
[ ] Riser (Y)
[ ] Multiple S. Landforms (1)
[ ] Bar (2)
[ ] Lagoon (3)
[ ] Ephemeral Wash (4)

Part A - Administrative Data

State No. 26Mn1669
Agency No.
Temp. No. KEC-590-30

[ ] Plain (F)
[ ] Canyon (G)
[ ] Island (H)
[ ] Cliff (F)
[ ] Delta (G)
[ ] Detached Monolith (H)
[ ] Port. Geo. Feature (N)
[ ] Plain (O)
[ ] Ridge/Knoll (P)
[ ] Spring Mound/Bog (V)
[ ] Valley (W)
[ ] Cutbank (X)
[ ] Kipuka (5)
[ ] Saddle/Pass (6)
[ ] Graben (7)

Describe: The site is located on the flat valley floor, immediately north of Hawthorne and south of Walker Lake.

***33. On-site Depositional Context**

[ ] Fan (A)
[ ] Talus (B)
[ ] Dune (C)
[ ] Stream Terrace (D)
[ ] Playa (E)
[ ] Outcrop (Q)
[ ] Extinct Lake (F)
[ ] Extant Lake (G)
[ ] Alluvial Plain (H)
[ ] Colluvium (I)
[ ] Moraine (J)
[X] Flood Plain (K)
[ ] Marsh (L)
[ ] Landslide/Slump (M)
[ ] Delta (N)
[ ] Desert Pavement (P)
[ ] Stream Bed (R)
[ ] Aeolian (S)
[ ] None (T)
[ ] Residual (U)

Describe: The soil is a coarse sand. According to Blake (1991:332-333), this site appears to be located within the *Inmo-Inmo, Occasionally Flooded*, soil association. This soil type is located on alluvial fans at elevations of 4,100 to 5,200 ft. and is very gravelly loamy sand on 2-8 percent slopes.

***34. Vegetation**

***a. Life Zone** [ ] Arctic-Alpine (A) [ ] Hudsonian (B) [ ] Canadian (C) [ ] Transitional (D) [X] Upper Sonoran (E) [ ] Lower Sonoran (F)

***b. Community:** **Primary On-Site** (O) **Secondary On-Site** (O) **Surrounding Site** (O)

Aspen (A)
Spruce-Fir (B)
Douglas Fir (C)
Alpine Tundra (D)
Ponderosa Pine (E)
Lodgepole Pine (F)
Other/Mixed Conifer (G)
Pinyon-Juniper Woodland (H)
Wet Meadow (I)
Dry Meadow (J)
Oak-Maple Shrub (K)
Riparian (L)
Grassland/Steppe (M)
Desert Lake Shore (N)
Shadscale Community (O)
Tall Sagebrush (P)
Low Sagebrush (Q)
Barren (R)
Marsh/Swamp (S)
Lake/Reservoir (T)
Agriculture (U)
Blackbrush (V)
Creosote Bush (Y)
Juniper-Sage (2)

Describe: This site is located in a shadscale community.

***35. Miscellaneous Text:**

References:

Blake, E. W. 1991. *Soil Survey of Mineral County Area, Nevada.* USDA Soil Conservation Service, Washington, D.C.

Elliott, R. R. 1987. *History of Nevada.* 2nd ed., Rev. University of Nebraska Press, Lincoln.

Gamett, J., and S. W. Paher. 1983. *Nevada Post Offices, An Illustrated History.* Nevada Publications, Las Vegas, Nevada.

Hulse, J. W. 1991. *The Silver State: Nevada's Heritage Reinterpreted.* University of Nevada Press, Reno.

Koval, A. B. 1989. *National Register of Historic Places Registration Form - Hawthorne Naval Ammunition Depot/Hawthorne Army Ammunition Plant.* On file, Nevada State Historic Preservation Office, Carson City.

Molyneaux, M. 1991. *Hawthorne Army Ammunition Plant - Babbitt Housing Area.* Unpublished manuscript. On file, Mineral County Museum, Hawthorne, Nevada.

Paher, S. W. 1970. *Nevada Ghost Towns and Mining Camps.* Howell-North Books, Berkeley.

36. Comments/Continuations:

Historical Background:

The residential community of Babbitt was built by the U. S. Navy as "temporary" housing to provide accommodations for the influx of married civilian personnel and their families during World War II to the Hawthorn area (Elliott 1987:275; Hulse 1991:334; Koval 1989:28-29; Molyneaux 1992; Paher 1970:437). Beginning in 1941, Babbitt, rapidly grew from an initial 50 housing units to over 1,100. By 1944, 2,860 civilians workers at the Hawthorne Naval Ammunition Depot, and the population of Hawthorne/Babbitt was estimated at over 13,000 persons.

Part A - Administrative Data

State No. 26Mn1669
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Temp. No. KEC-590-30

Babbitt's development is detailed by Koval (1989:28-29), and Molyneaux (1992). Between 1941 and 1945, 580 duplexes with two two-bedroom or one bedroom/three bedroom floor plans were designed by the U.S. Navy Bureau of Yards and Docks, as part of the U.S. Navy's Low Cost Defense Housing Program. In February 1941, the first construction contract for $163,000 was awarded. Construction began in March, and was completed by Summer 1941. The second phase of construction began in April 1942, and was finished by December. The partially prefabricated units were rectangular, 27 by 55.5 foot, one-story, wood-framed, asbestos-sided structures on concrete foundations. They had asbestos-shingled gable roofs, casement windows, and single doors. Streets were laid out in a grid pattern around a central community center.

At least 12 community buildings were constructed. Centrally situated, these structures varied in size. Like the residential units, they were one-story, wood-framed, asbestos-sided buildings on concrete foundations, with gabled, asbestos-shingled roofs, store-front windows, and single doors. These housed a grocery store, post office (opened on October 1,1942: Gamett and Paher 1983:74) drug store, bank, bowling alley, theater, nursery/day care, dance hall, community center, and dispensary.

Molyneaux (1992) charts the development/evolution of Babbitt between 1941 and 1987. In 1941, initial construction of 25 duplexes occurred in the community's northwest corner. During 1942, Babbitt subsequently was expanded to 400 duplexes, followed in 1943 by 87 more, and in 1944-1945 by approximately another 100. In the early 1950s, Babbitt peaked, with 579 duplexes, and 100-80 single family residences. By 1960, there were 408 duplexes, and 49 single family units. This had dropped to 294 duplexes and 49 single family units in 1970. By 1976, further reduction had occurred (156 duplexes, 49 single family units). From 1979-1987, 145 duplexes were left.

Babbitt had a police force, and a community council. African-American workers and their families lived in a "Colored section," located in the extreme southeast corner of Babbitt. It was separated from the rest of the community by an undeveloped "buffer zone." Shopping/business activities generally occurred without obvious restrictions. However, recreational and social activities were segregated.

After World War II, some houses in Babbitt were left vacant. During the Korean War, 1950-1953, many duplexes were renovated, and additional housing was built. In 1950, Babbitt had 2,464 residents, and Hawthorne 1,861 (Koval 1989:48). Following the Korean War, Babbitt continued to be occupied. During 1952, monthly rents went from $25 to $45. A number of businesses in Babbitt rivaled those in Hawthorne. In the 1950s, a new school and sports facilities were built. Discrimination against African-Americans and segregation persisted, but began to change in the late 1950s and early 1960s with the rise of the nationwide Civil Rights Movement.

In 1960, the population of Hawthorne was 2,838, and that of Babbitt 2,159 (Koval 1989:49). During the 1960s and early 1970s, the Vietnam War necessitated continued occupancy of Babbitt. The 1970 census reported that 3,539 people lived in Hawthorne, and 1,579 in Babbitt (Koval 1989:49). After the mid-1970s, Babbitt was increasingly reduced in size. By June 1987, its last residents were gone. Many residential units were moved out, while others were torn down. In 1992, most of Babbitt's central community buildings were abandoned, and in disrepair. Subsequently, almost all have been razed.

Part C - Historic Sites

State No. 26Mn1669
Agency No. ____________
Temp. No. KEC-590-30

1. **Site Type:** Historic townsite (Babbitt, Nevada)

*2. **Historic Theme(s):** Community Development (CD); Military-general (MT)

*3. **Culture:**

	CULTURAL AFFILIATION	DATING METHOD
	European/American (EA)	Cross-Dating/Diag. Artifacts (F)
	Afro-American (AF)	Historical Record (I)

Describe: The town of Babbitt was a segregated housing community for civilian workers at the Hawthorne Naval Ammunition Depot, with white and "colored" sections separated and buffered (Molyneaux 1992b).

*4. **Oldest Date:** 1941 **Recent Date:** 1987

How Determined? Historical research indicates Babbitt began as a military housing community in 1941, and was occupied through World War II, the Korean War and the Vietnam War. The last residents were gone by 1987 (McCloskey 1987:1-2; Molyneaux 1992a).

5. **Site Dimensions:** 2,344 m (N/S) x 721 m (E/W) ***Area:** 1,344,319 sq. m

*6. **Surface Collection Method**
[X] None (A)
[ ] Grab Sample (B)
[ ] Designed Sample (C)
[ ] Complete Collection (D)

Sampling Method: N/A

*7. **Estimated Depth of Cultural Fill**
[X] Surface (A)
[ ] 0 - 20 cm (B)
[ ] 20 - 100 cm (C)
[ ] 100 cm + (D)
[ ] Fill noted but unknown (E)
[ ] Depth Suspected, but not tested (F)

How Estimated: *(If tested, show location on site map)* None of the artifacts appear to be buried, and the house foundations are all concrete slabs, no subsurface features.

*8. **Excavation Status** [ ] Excavated (A) [ ] Tested (B) [X] Unexcavated (C)

Testing Method: N/A

*9. **Summary of Artifacts and Debris** *(Refer to Guide for additional categories)*

[X] Glass (GL)
[ ] Metal (ME)
[ ] Nails (NC, NW)
[ ] Stove Parts (SP)
[ ] Insulators (IN)
[ ] Bone (BO)
[X] Ceramics (CS)
[ ] Fabric (FA)
[ ] Mining/Milling Machinery(MN)
[ ] Building Hardware (BH)
[ ] Leather (LE)
[ ] Wire (WI)
[X] Tin Cans
[ ] Mining Tools (MT)
[ ] Tar Paper (TP)
[ ] Ammunition (AM)
[ ] Wood (WD)
[ ] Rubber (RB)
[ ] Shoes (SO)
[ ] Tobacco Tins (TO)
[X] Domestic Items (DI)
[ ] Kitchen Utensils (KU)
[X] Car/Car Parts (CR)
[ ] Brick (BR)
[ ] Clock Parts (CT)

Describe: A light scatter of refuse covers much of the Babbitt town site. This material is a mix of historic and modern refuse. The historic material is likely what remained when the town's buildings were removed. The following represents only a random sample inventory of historic refuse observed across the town site. This sample includes a fish tin, approximately 700 bottle glass fragments (7-Up green, aqua, cobalt blue, amethyst, colorless), 5 ceramic sherds (Fiesta Ware, porcelain, white improved earthenware), a buckle from a pair of suspenders, a bicycle seat, ceramic tile fragments, and a ceramic spark plug with "AC 45 / PATENTED CORALOX."

10. **Ceramic Artifacts:**

#	PASTE	GLAZE/SLIP	DECORATION	PATTERN	VESSEL FORM(S)
1	Fine, white	Yellow, dark green glaze	None	*Fiesta* design	Tea cup
1	Fine, white	Clear/white	None	None	Sanitary porcelain (Sink fragment)
1	Fine, white	Clear/white	Unknown	Unknown	Unknown
2	Fine, white	Mint green glaze	Decal	Unknown	Unknown

a. **Estimated Number of Ceramic Trademarks:** None

Part C - Historic Sites

State No. 26Mn1669
Agency No.
Temp. No. KEC-590-30

Describe: *Fiesta* ware dinnerware was manufactured from 1936 to 1972, and reintroduced in 1986 (Huxford and Huxford 1992:8-12; Kellner 2007). Other ceramic fragments include white improved earthenware, one of which has the flow blue effect associated with sponge ware and transfer print type decorations, a decal, unidentified pattern, and a fragment of sink porcelain.

11. Glass:

#	MANUFACTURE	COLOR	FUNCTION	TRADEMARKS	DECORATION
300	ABM	7-Up green	Soda	Base: "23 [Owens Illinois - I in a diamond and an O] / 51"	None
1	Unknown	Aqua	Unknown	None	Fluted body
300	ABM	Cobalt blue	Milk of Magnesia	Base: "M [in a circle]"	None
100	ABM	Amethyst	Unknown	None	None
1	ABM	Colorless	Soda	Body: "FARR / BETTER / BEVERAGES / RENO / NEV"	None

Describe: [*Note:* The term mold blown is used to indicate that the bottle glass was blown into a mold for shape by either mouth or machine. ABM refers to automatic bottle machine, which is used here to represent both ABM and Semi-ABM if there is no available information to indicate that the bottle was made by a semi-automatic bottle machine.] The Owens Illinois Glass Company bottle was manufactured at their Los Angeles, California plant in 1951 (Giarde 1980:77, 98; Toulouse 1971:395, 403). The mark on the cobalt blue glass base appears to be one used by the Maryland Glass Corp. of Baltimore, Maryland and dates from 1916-c. 1971 (Giarde 1980:70;Toulouse 1971:339), although Whitten (2006) suggests it was used between 1921 and the early 1970s. This company was known for making bottles and jars for *Phillips Milk of Magnesia* and other medicinal products. Amethyst glass results from using manganese dioxide as a decolorizing agent used between c. 1880 and c. 1920s (IMACS 1992:472.7; Jones and Sullivan 1989:13-14; Miller and Pacey 1985:19(1)44-45; Newman 19790:4:74, Figure 2), although Lockhart (2006:40(2)50-54) notes that specific bottle types and plate have more defined periods of use. Applied color labels were used from 1934 to 1965 (Beverage World 1982:114; Jones and Sullivan 1989:16, 76; Munsey 1970:52). According to The Museum of Beverage Collecting and Advertising (2003a, 2003b), *Farr Better Beverages* with the name in a red circle, dates from the 1950s, although the company was selling beverages at least as early as 1948. The Coca-Cola bottle plant in Reno also bottled their product.

12. Maximum Density - #/sq. m (glass and ceramics): 5 /sq. m

13. Tin Cans: [*Note:* The measurements follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.]

#	TYPE	OPENING	SIZE	MODIFIED	LABEL/MARK	FUNCTION
1	Flat oblong	Rotary	606 x 104 x 408	No	"...ORINER / USA;" "P [in a circle]"	Fish tin

Describe: This flat oblong tin is two-piece drawn, a method of manufacture used since 1897, with a crimped end that appears to have been available as early c. 1901, but may date from c. 1904. Use of the rotary opener also suggests an early date of c. 1904 to the present (Rock 1989:61, 139-140, 188).

***14. Landscape and Constructed Features (locate on site map)** - *(See Guide for additional categories)*

[X] Trail/Road (TR)
[ ] Tailings (MT, ML)
[ ] Rock Alignment (RA)
[ ] Cairn (AI)
[ ] Dump (DU)
[ ] Depression (DE)
[ ] Cemetery/Burial (CB)
[ ] Prospect Hole (PH)
[ ] Dam, Earthen (DA)
[ ] Ditch (DI)
[ ] Inscriptions (IN)
[ ] Hearth/Campfire (HE)
[ ] Quarry (QU)
[X] Other (OT)

Describe: Identified features in Babbitt include extant streets, once paved, and concrete structure foundations. A total of 46 streets/roads were noted in the site area. While all were once paved, they have fallen into disrepair, and are in varying stages of decomposition. Thirty-four of the roads remain paved, one has no pavement, one is pave but partially buried, three retain remnants of paving, and seven have pavement that becomes gravel. Other features include 92 duplex foundations. These are all concrete slabs, measuring 27 feet wide and 55 feet long. These slabs were once the foundations of duplexes which consisted either of two two-bedroom units, or one bedroom/three bedroom units. No duplexes are currently present. Other features include curbs and sidewalks paralleling the streets, and the sidewalks which led from the street to the duplexes, three per building. These occur sporadically throughout the site, in various stages of weathering.

Feature 1 is the foundation of the Silver State Bowling Alley, centrally located in Babbitt. This foundation is concrete, and is approximately 4 feet (ft.) high in the front (north elevation), about 1.5 ft. along the west elevation, from grade to approximately 1 ft. along the south elevation, and from grade to approximately 1.5 ft. along the east elevation. Two sets of stairs, one of which has a ramp, lead up into the building in the northern wall to two entrances. On top of the foundation, rebar protrudes from where the walls

once stood. The foundation, which is U-shaped, measures approximately 130 ft. along the north elevation (east-west), 122 ft. along the two arms (north/south), 40 ft. along both south ends of the arms, and 50 ft. in the center south elevation.

***15. Buildings and Structures (locate on site map):**

#	MATERIAL	TYPE
1	Combination of materials (W)	Structure and building (S-1)
1	Combination of materials (W)	Building (S-2)

Describe: Two buildings and one structure were recorded associated with Babbitt. These include a water tower and associated chlorination building, and the former Babbitt Elementary School.

Structure 1: Water Tank No. 7, was built between 1942 and 1944. Stephen Gustafson (Personal communication 2007), who was in charge of the tanks while employed at the Hawthorne Depot, indicated it was built in 1944 and painted in 1949, based on tower plans. An aerial photograph taken in September 1943 included in an article by Jack McCloskey (1987:2) shows a similar tower in the general location of the current one. Koval (1993:5) noted that the tank was connected to the system via “a pressure reducing station and a 10 in. pressure line,” and was built specifically to supply water to Babbitt.

The name for this type of tower is unknown. Similar structures were constructed as early as 1929 (Canadian Water Towers n.d.). Use of the water tower was ended in 1985. Eventually it was given to Hawthorne, but according to Stephen Gustafson (Personal communication 2007), it has never been used by the community due to deterioration of the tank.

This tower is constructed of steel, with four legs connected at the base. A single pipe extends from the center of the tank base down to the ground connecting with a pipe system that goes into the associated chlorination building. The pipe enters a concrete foundation where the chlorination system probably is present below the ground surface. The foundation is covered with wood slats, and measures approximately 5 feet wide by 2 feet long. A chain-link fence surrounds the tower and clorination building, enclosing an area approximately 39 feet square. It is 7 feet high, and topped by canted barb wire. The legs of the tower also have metal baffles attached to a height of approximately 15 feet to prevent people from climbing the tower. The tower, with the tank on top, is between 150 and 200 feet high.

A valve is located roughly south of the Chlorination Building. Embossed on it is the following information. Top: “OPEN TOP;” length: “541 / UL / FM [in an inverted diamond] / 931 / THE / KENNEDY [one letter atop the next] / VALVE.” According to FireHydrant.org (1996-02), this Kennedy Valve Company valve, Model 541, was noted between 1978 and 1979. The remainder of the body of the valve is embossed with “MFG / CO.” below “VALVE.” The “UL” stands for Underwriters Laboratory listing, and the “FM [in an inverted diamond]” represents approval by FM Global, an industrial and commercial insurance company (FM Approvals 1999-2007; FM Global 1999-2007; Underwriters Laboratories 2007).

The associated building was identified as the Chlorination Building located under the water tank on a map of Babbitt (Hawthorne NAD c. 1945). It is a single-story, wood-framed building with a low sloped, shed roof covered with composition roofing material, either roll or shingle, overlaying wood slats. Eaves are of moderate size, open with a fascia board on the ends. Walls are clad with v-notch shiplap siding, with wood corner boards. The foundation is concrete, and extends to the west under a pipe extending down from the center of the water tank. Fenestration is limited and asymmetrical, consisting of two doors. Both of the doors are wood, one (northwest elevation) of which appears to be original, and repaired with plywood. It is slightly open. The other, on the northeast elevation, has been replaced with plywood.

Structure 2: According to Stephen Gustafson (Personal communication 2007), the Babbitt Elementary School was constructed in 1953, and used by Hawthorne until 1985. In either 2005 or 2006, the property was sold to the Sky View Academy, at which time the school was renovated, and additional buildings added to the complex.

Structure 2 is a single-story, Contemporary School Structure, built on a rectangular plan with an irregularity. The foundation is concrete, and the structure is concrete block clad with stucco. The low-pitched shed roof is covered with corrugated sheet metal. Wood roof slats are exposed under the eaves, which are very wide and open. The roof beams are exposed and tapered on the exterior. Fascia boards are on the ends. The eaves are wider along the east elevation, providing shade over sidewalks that run along the side of the building. There are no chimneys or flues, but eight new air conditioning units are present on the roof.

All the windows found on the extension on the east elevation and along the length of the west elevation, are modern aluminum. In the center of the extension on the east elevation is a metal door with a single light. On each side of the door are two vertical slide windows. A single vertical slide window occurs to the north and south of the extension. South of the window is a second metal door. There are no openings on the south or north elevations. On the northwest corner of the north elevation is a large circular stucco frame built into the wall with a painting of the sky on the inside. There are approximately 30 windows present on the west elevation. These appear to be a mix of vertical slide and possibly fixed. There also are six metal doors with a single light, and one solid metal

door present. The west elevation is partially obscured by the wood fence that surrounds the compound. A photograph taken of the school in the c. 1960s (Babbitt 2007 calendar), shows the door and windows on the extension, as well as the doors on the north and south. Other windows are not as evident due to shadows.

Additional buildings recently have been added to the school complex. To the south is the Administrative building, which is a modern, prefabricated, one-story building with T-1-11 siding. Other buildings include at least two dormitories on the north side, an unknown building between them and the school, and at least two other buildings on the south side west of the Administration building. All are prefabricated, and date between 2005 and 2007.

16. Comments/Continuations - *(Please make note of any Historic Record searches performed (for example - County Records, General Land Office, Historical Society, Land Management Agency Records, Oral Histories/Interviews)*

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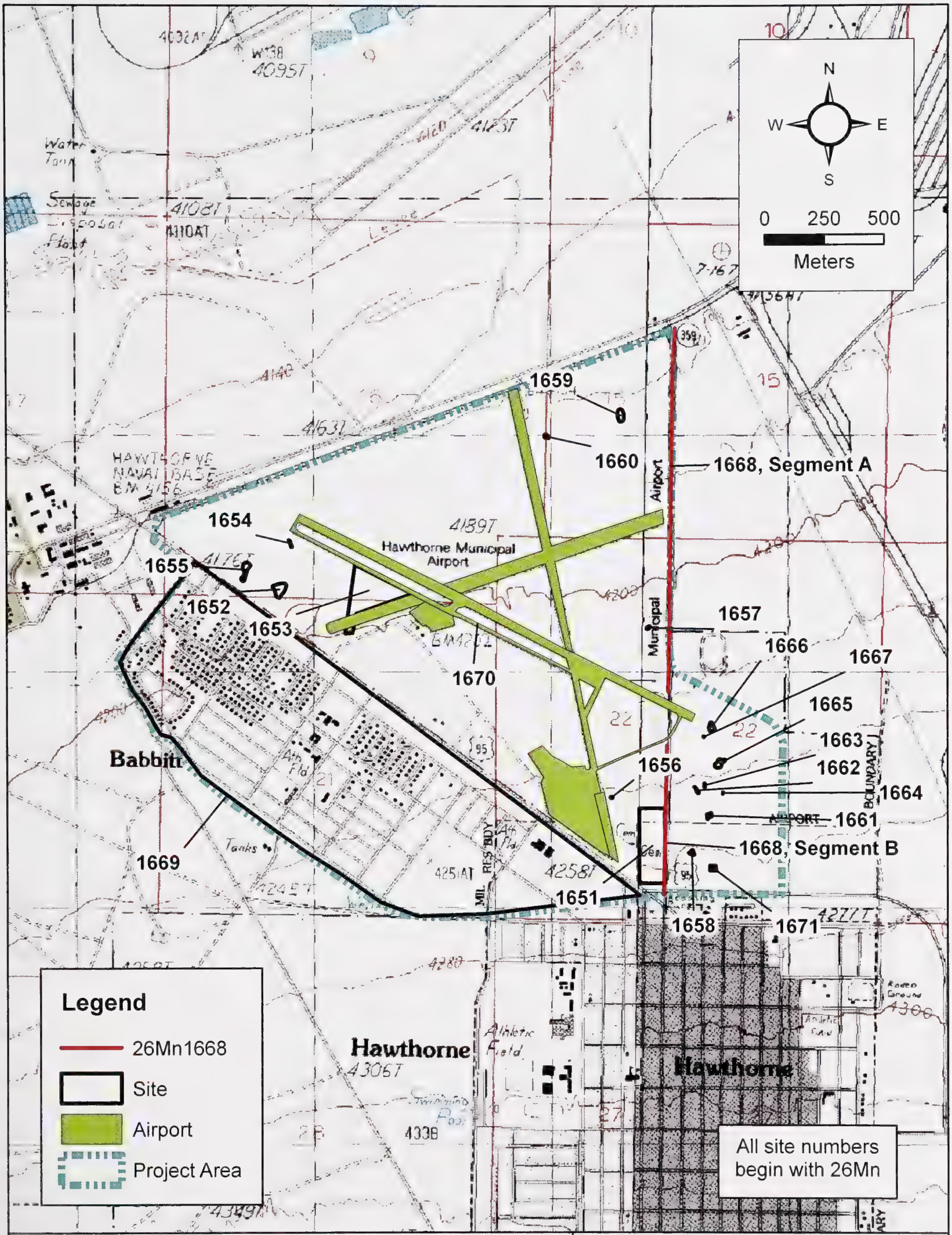
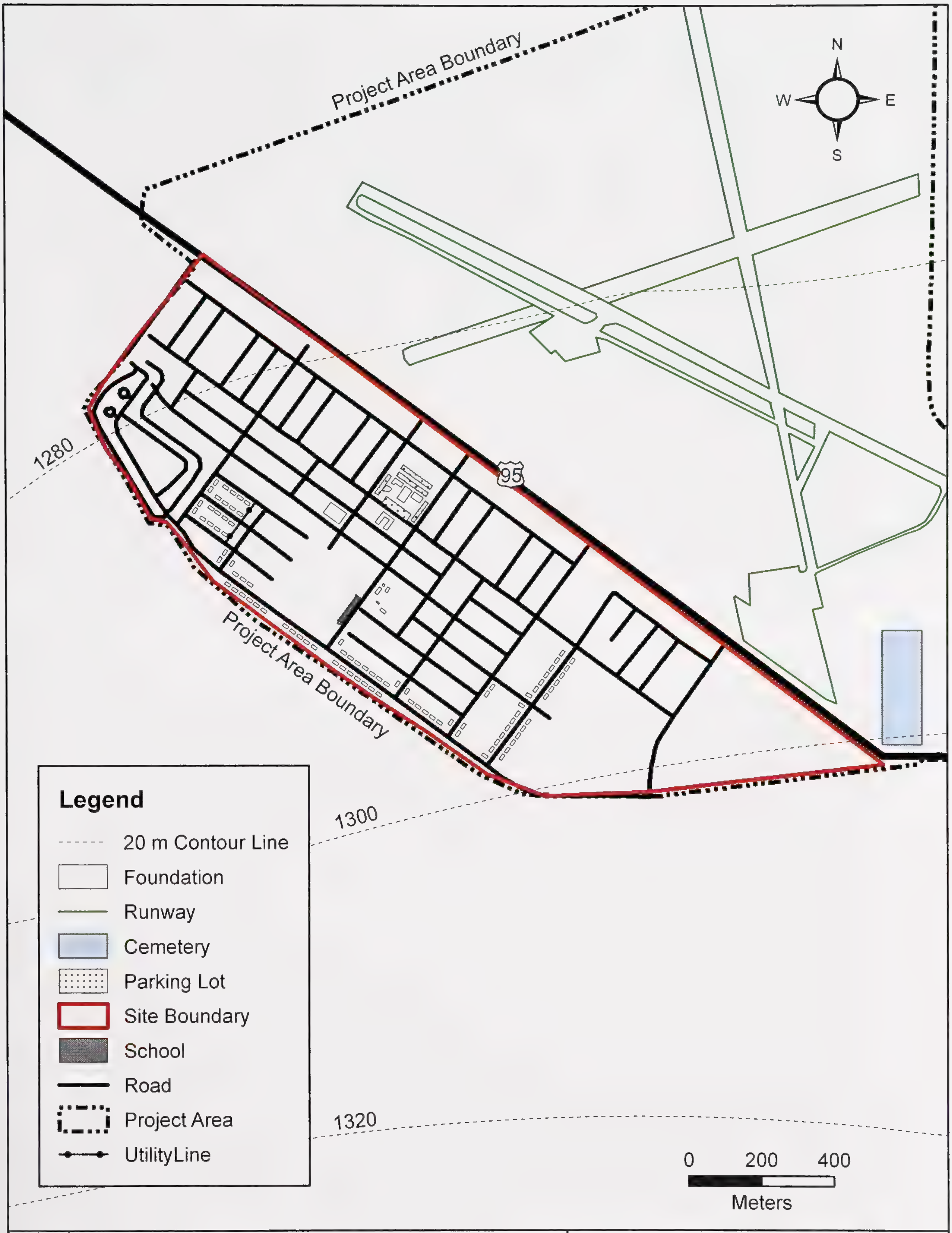


Site Location Map: Site No. 26Mn1669 (KEC-590-30)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

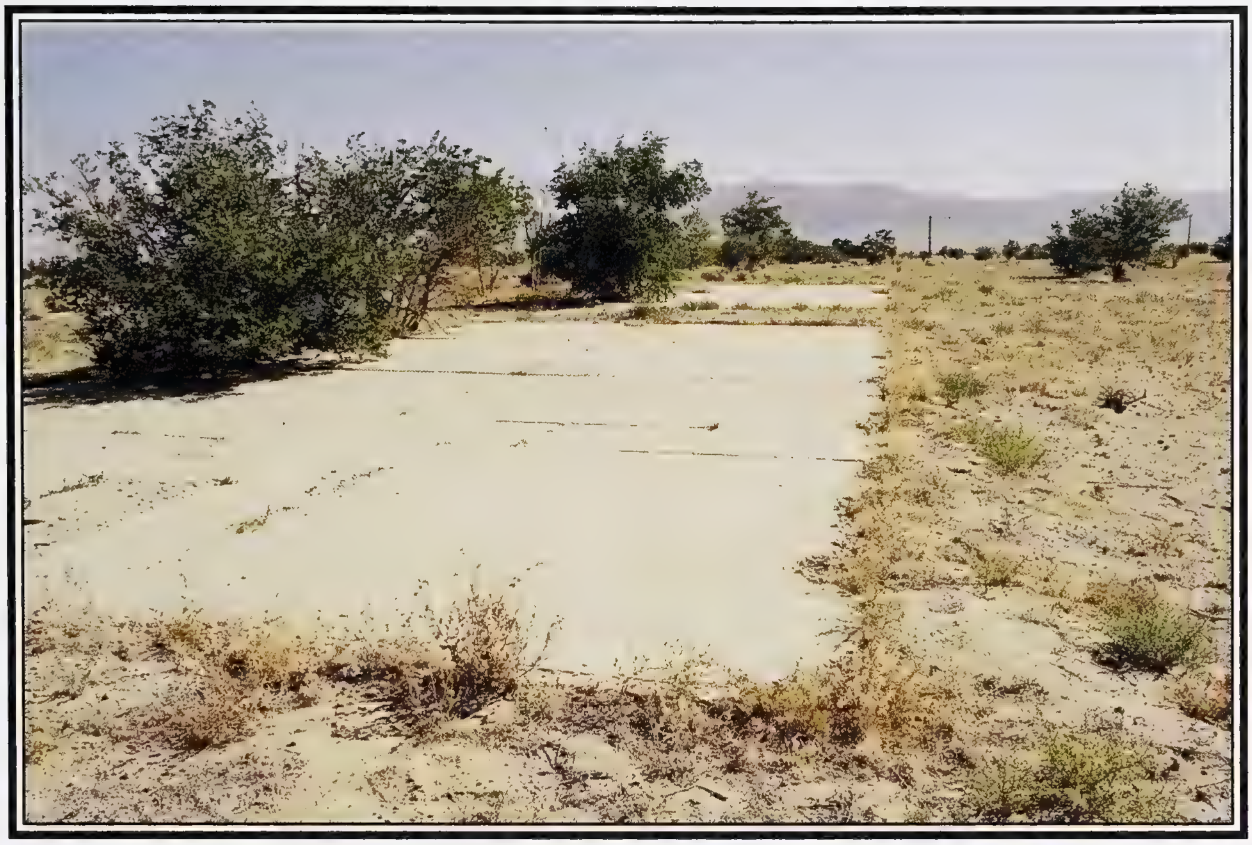
kautz
ENVIRONMENTAL CONSULTANTS, INC.



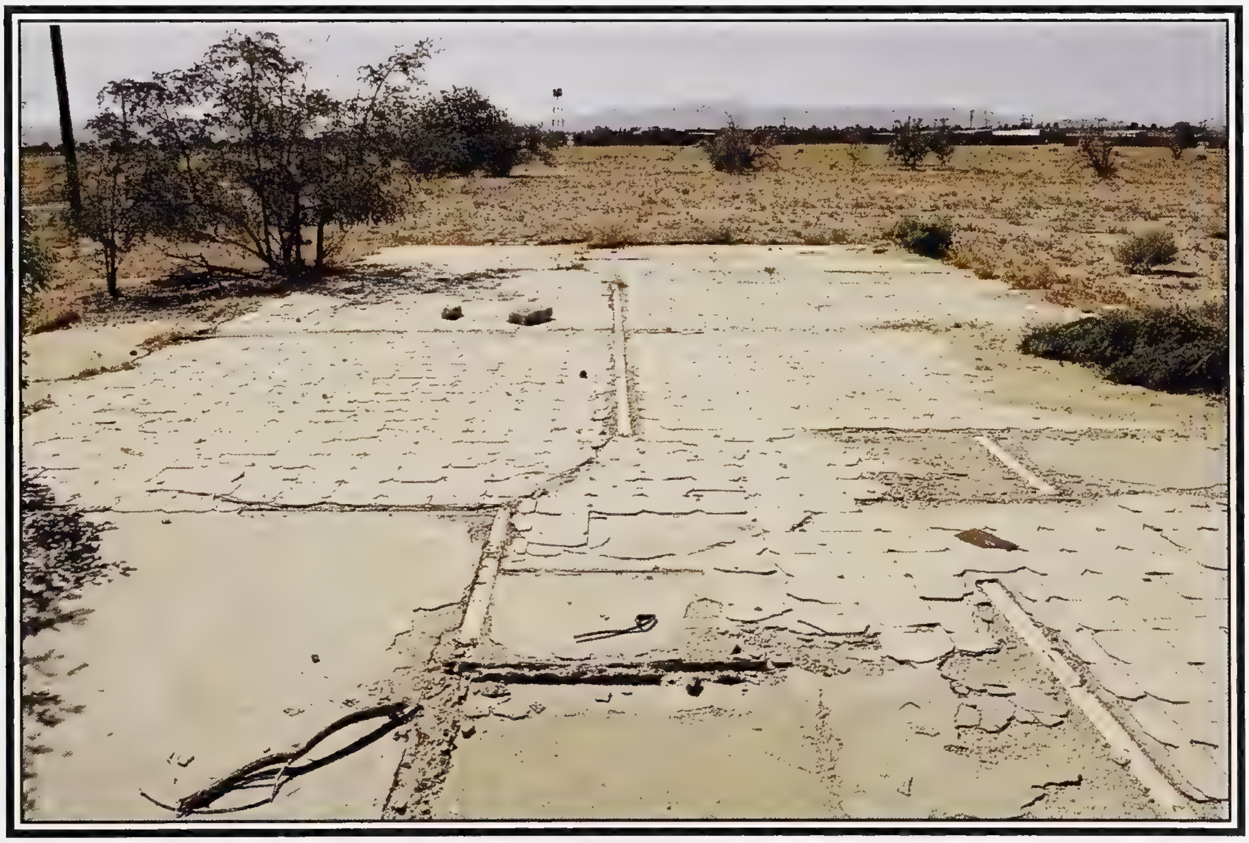
Site Sketch Map: Site No. 26Mn1669 (KEC-590-30)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 06-26-07

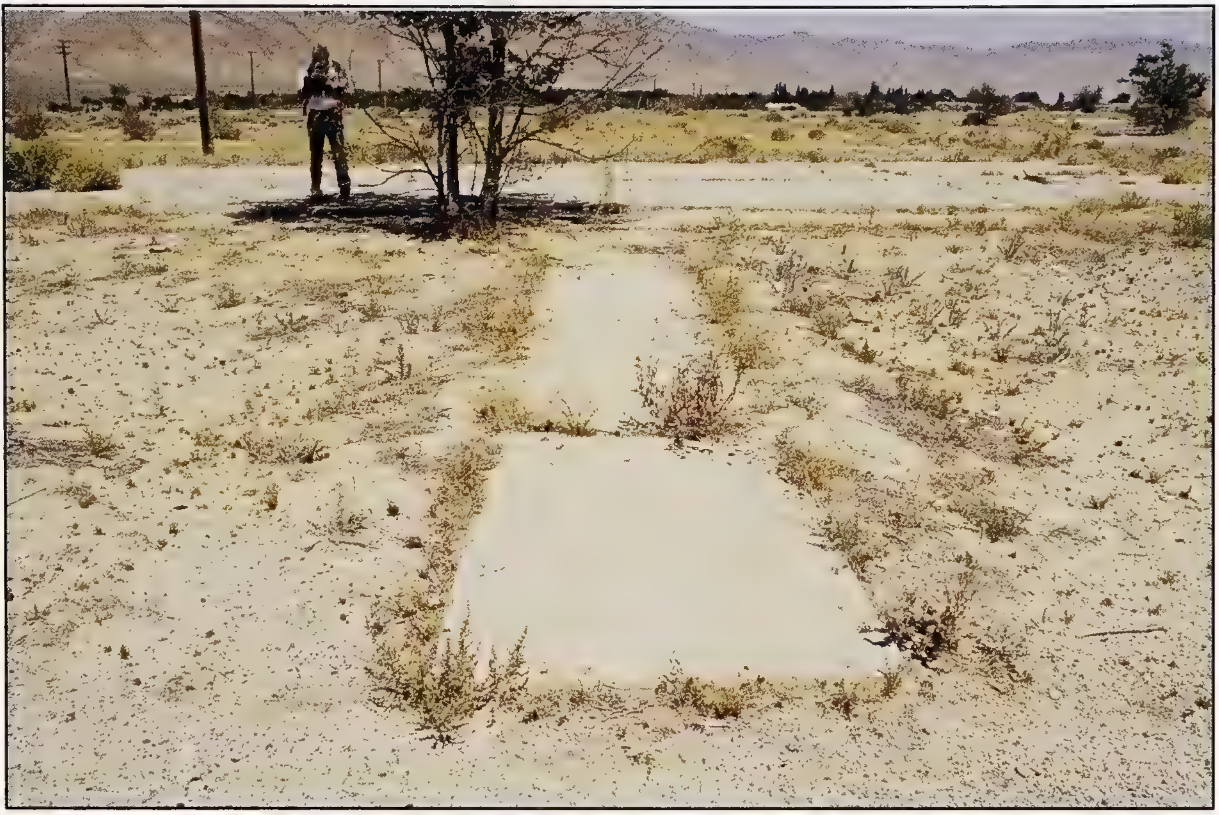
kautz
ENVIRONMENTAL CONSULTANTS, INC.



Photograph 1 (IMACS) Site 26Mn1669 (KEC-590-30). Duplex foundation remnants (25°). Kautz Environmental Consultants, Inc., 2007.

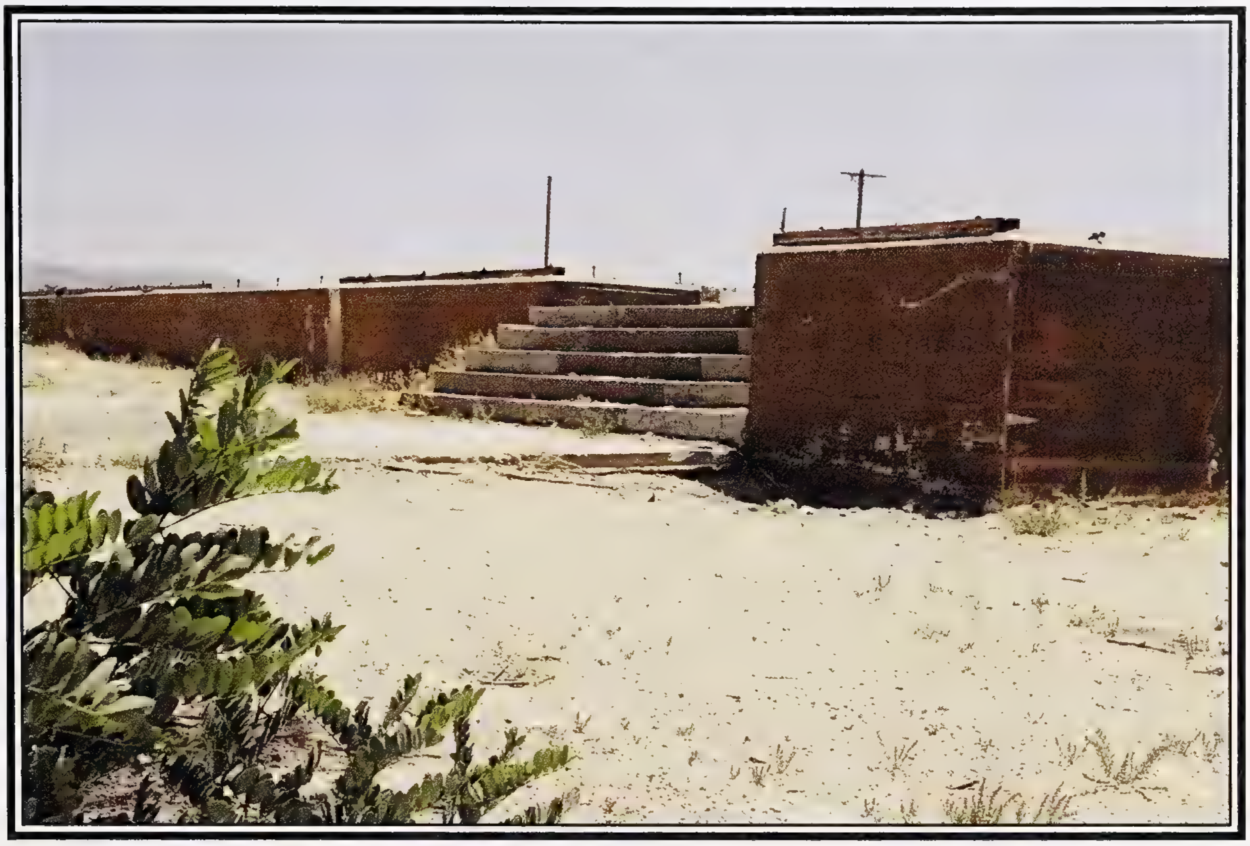


Photograph 2 (IMACS) Site 26Mn1669 (KEC-590-30). Foundation with tiles (detail). Kautz Environmental Consultants, Inc., 2007.

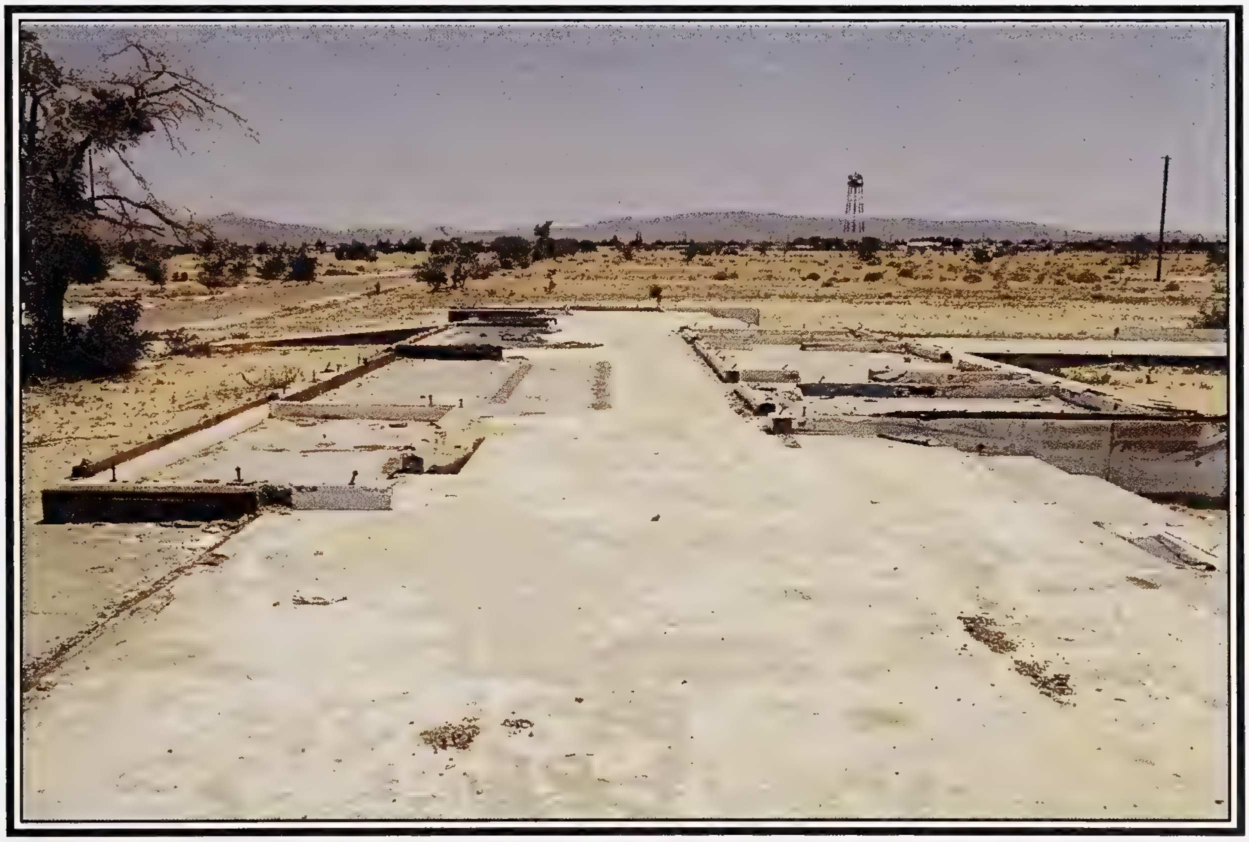


Photograph 3 (IMACS) Site 26Mn1669 (KEC-590-30). Concrete sidewalk to duplex foundation (detail). Kautz Environmental Consultants, Inc., 2007.

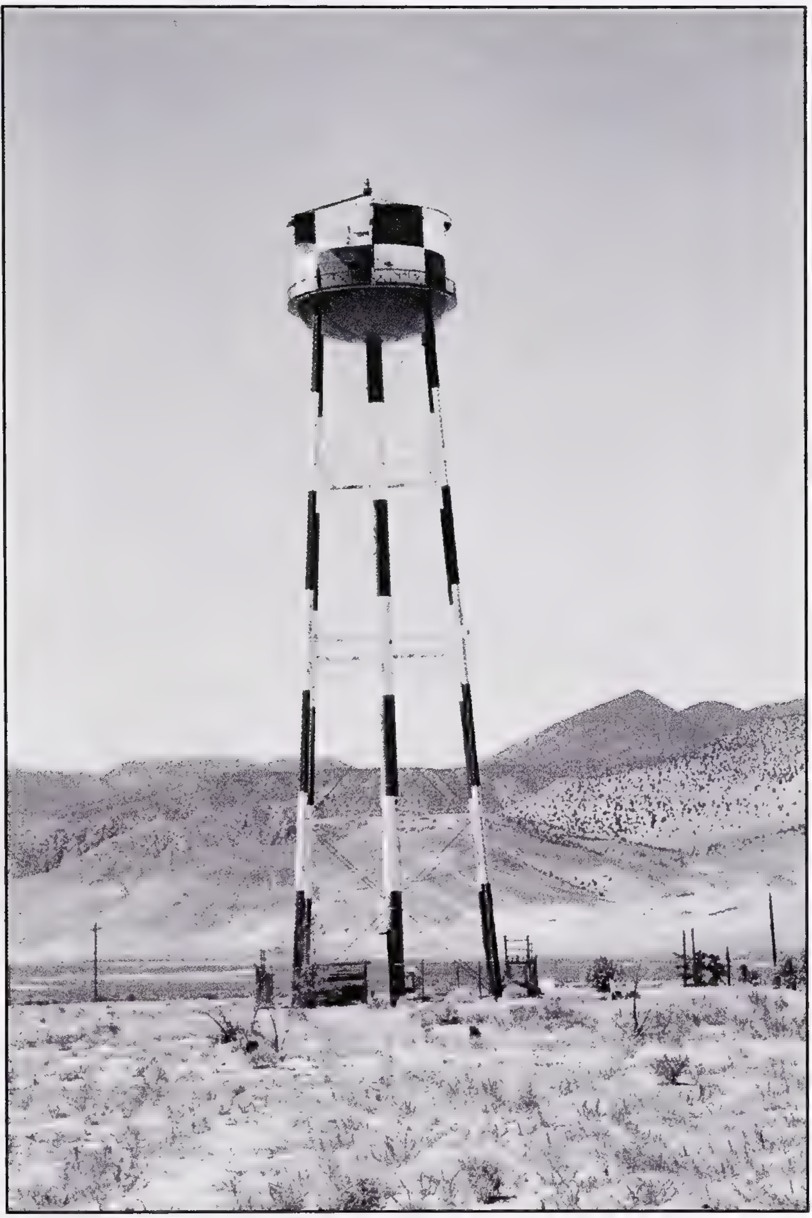
Photograph 4 (IMACS) Site 26Mn1669 (KEC-590-30). Modern streetscape in Babbitt, Nevada (120°). Kautz Environmental Consultants, Inc., 2007.



Photograph 5 (IMACS) Site 26Mn1669 (KEC-590-30). Foundation of bowling alley, Feature 1 (160°). Kautz Environmental Consultants, Inc., 2007.

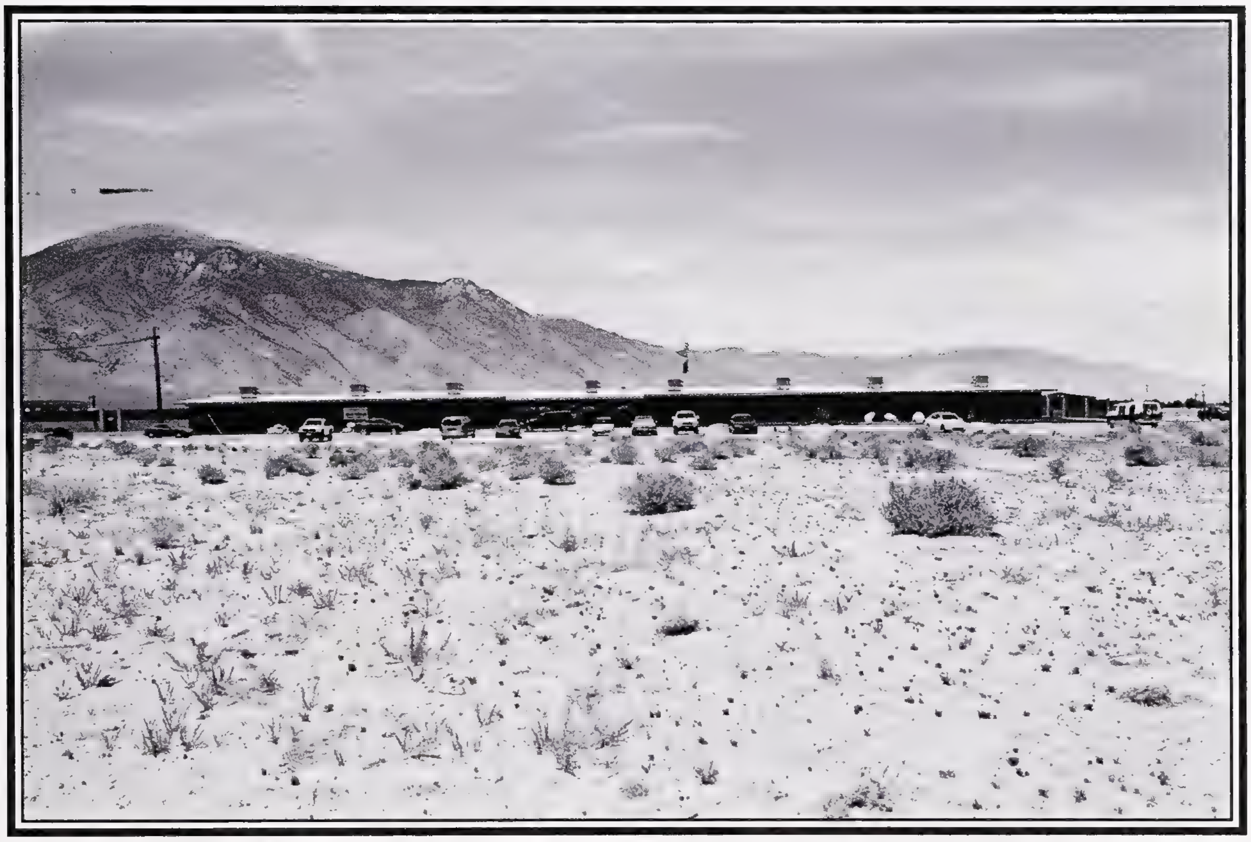


Photograph 6 (IMACS) Site 26Mn1669 (KEC-590-30). Bowling alley, Feature 1, from top (116°). Kautz Environmental Consultants, Inc., 2007.



Photograph 7 (IMACS)

Site 26Mn1669 (KEC-590-30). Water tower, Associated Building A (220°). Kautz Environmental Consultants, Inc., 2007.



Photograph 8 (IMACS) Site 26Mn1669 (KEC-590-30). Sky View Academy, Main Building (308°). Kautz Environmental Consultants, Inc., 2007.

IMACS SITE FORM
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

Form approved for use by
BLM - Utah, Idaho, Wyoming, Nevada
Division of State History - Utah, Wyoming
USFS - Intermountain Region
NPS - Utah, Wyoming

***1. State No.** 26Mn1670
***2. Agency No.**
3. Temp. No. KEC-590-31

Part A - Administrative Data

4. **State:** Nevada **County:** Mineral

5. **Project:** Hawthorne Survey (KEC-590)

*6. **Report No.:**

7. **Site Name / Property Name:** Hawthorne Municipal Airport

8. **Class:** [ ] Prehistoric [X] Historic [ ] Paleontologic [ ] Ethnographic

9. **Site Type:** Historic airport

*10. **Elevation:** 4,200 ft.

*11. **UTM Grid** (NAD 1983) **Zone** 11 357854 **mE** 4266836 **mN** [Datum]

*12. SW¼ of the SW¼, and the SW¼ of the NW¼ of the SW¼ of Section 15; the S½ of the SE¼, and the NE¼ of the SE¼ of the SW¼ of Section 16; and the N½ of the S½ of the NE¼, and the S½ of the N½ of the NE¼ of Section 21; and the W½ of Section 22, T.8N., R.30E.

*13. **Meridian:** Mt. Diablo (7)

*14. **Map Reference:** *Hawthome West, Nevada* 7.5' Topographic Quadrangle, U.S.G.S. (1987)

15. **Aerial Photo:** None

16. **Location and Access:** Head south on Highway 95 from Fallon, Nevada. Continue roughly 80 miles toward Hawthorne, Nevada. The town site of Babbitt is on the west side of Highway 95 about one mile before entering Hawthorne., and the Hawthorne Municipal Airport is immediately on the north side of the highway.

*17. **Land Owner:** Municipal

*18. **Federal Administrative Units:** N/A

*19. **Location of Curated Materials:** N/A

20. **Site Description:** This site is the Hawthorne Municipal Airport, located on the valley floor just south of Walker Lake. The air field has three runways. Two are dirt, and are no longer in use. A third paved runway currently serves the airport. The dirt runways include one trending north-south, which is 6,696 ft. long and 147 ft. wide. A second east-west runway is 4,917 ft. long and 220 feet wide. The total acreage of the historic portion of the airport is about 40 acres, which closely corresponds to the 46-acre emergency air field constructed by the Civilian Conservation Corps for the Hawthorne Naval Ammunition Depot (NAD) in the 1930s (Kolvet and Ford 2006:114). This suggests this is the location of that early NAD airport. In addition to the two runways, one historic structure was noted on the site (**S-3**), a duplex from the nearby community of Babbitt which was moved to the airport. This structure is currently a Civil Air Patrol office building, probably moved to the area in the late 1980s, when Babbitt was demolished. The historic airport has a modern runway and airport buildings, located at the southern end of the former historic air strip. The modern runway trends northwest to southeast, crossing both historic runways. A portion of one of these older runways is used as a taxiway for the modern, paved, runway. Structure S-3 is located near the southern end of the site, in the midst of the modern airport buildings. Although several refuse scatters were noted in the vicinity (see accompanying IMACS forms), none of these could be definitively associated with the airport. The modern Hawthorne Municipal Airport covers approximately 47 acres.

List of Attachments:
[ ] Part B
[X] Part C
[ ] Part E
[X] Topo Map
[X] Site Sketch
[X] Photos
[ ] Artifact/Feature Sketch
[ ] Continuation Sheets
[X] Other: 2006 Aerial photograph

*Encoded Data Items

Part A - Administrative Data

State No. 26Mn1670
Agency No.
Temp. No. KEC-590-31

***21. Site Condition:** [ ] Excellent (A) [ ] Good (B) [ ] Fair (C) [X] Poor (D) [ ] Inundated (E) [ ] Destroyed (F)

***22. Impact Agent(s):** The modern Hawthorne Municipal Airport covers 47 acres, overlaying both historic runways. Portions of one of the runways is , and is used as a taxiway. The two historic runways are no longer used.

***23. National Register Status:** [ ] Significant (C) [X] Non-Significant (D) [ ] Unevaluated (Z)

Justify: This site is the Hawthorne Municipal Airport, used as an emergency landing air field by the Hawthorne Naval Ammunition Depot, built by the Civilian Conservation Corps during the 1930s. While the airfield is not directly related to any important historical figures, does not contain unique or outstanding engineering features, and does not have the potential to yield information relevant to address historic research themes and associated questions posed in the accompanying report, as an element of the Hawthorne Naval Ammunition Depot, and a 1930s CCC project, the airport has the potential for significance and eligibility for nomination to the National Register of Historic Places under criterion a. However, the airfield has been significantly impacted both by disuse, and by construction of new runways on top the old which occurred as a result of transfer of the airport's ownership from the U. S. Navy to Mineral County. While the original air strips retain *partial* integrity of location and association, any buildings or other features associated with the historic elements of the airfield have been destroyed, thus compromising its integrity of location, setting, feeling, association, materials, workmanship, and design. As a consequence. this site is recommended not-significant, and not eligible for nomination to the NRHP as an individual entity, and also is recommended as a non-contributing element to the Hawthorne Naval Ammunition Depot, since the airfield's integrity has been significantly compromised.

24. Photos: KEC-590 Roll 9, Frames 11-22

25. Recorded by: M. Kimball

***26. Survey Organization:** Kautz Environmental Consultants, Inc., Reno, Nevada (KF)

27. Assisting Crew Members: J. McCarty ***28. Survey Date:** June 29, 2007

***29. Slope:** 1 (Degrees) **Aspect:** 330 (Degrees)

***30. Distance to Permanent Water:** 67 x 100 Meters NW

*Type of Water Source [ ] Spring/Seep (A) [ ] Stream/River (B) [X] Lake (C) [ ] Other (D)
Name of Water Source: Walker Lake

***31. Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)

32. Topographic Location - *See Guide for additional information

PRIMARY LANDFORM
[ ] Mountain spine (A)
[ ] Hill (B)
[ ] Tableland/Mesa (C)
[ ] Ridge (D)
[X] Valley (E)
[ ] Plain (F)
[ ] Canyon (G)
[ ] Island (H)
[ ] Alluvial fan (A)
[ ] Alcove/Rock Shelter (B)
[ ] Arroyo (C)
[ ] Basin (D)
[ ] Cave (E)
[ ] Cliff (F)
[ ] Delta (G)
[ ] Detached Monolith (H)

SECONDARY LANDFORM
[ ] Dune (I)
[X] Floodplain (J)
[ ] Ledge (K)
[ ] Mesa/Butte (L)
[ ] Playa (M)
[ ] Port. Geo. Feature (N)
[ ] Plain (O)
[ ] Ridge/Knoll (P)
[ ] Slope (Q)
[ ] Terrace/Bench (R)
[ ] Talus Slope (S)
[ ] Island (T)
[ ] Outcrop (U)
[ ] Spring Mound/Bog (V)
[ ] Valley (W)
[ ] Cutbank (X)
[ ] Riser (Y)
[ ] Multiple S. Landforms (1)
[ ] Bar (2)
[ ] Lagoon (3)
[ ] Ephemeral Wash (4)
[ ] Kipuka (5)
[ ] Saddle/Pass (6)
[ ] Graben (7)

Describe: The site is located on the flat valley floor, immediately north of Hawthorne, south of Walker Lake.

***33. On-site Depositional Context**

[ ] Fan (A)
[ ] Talus (B)
[ ] Dune (C)
[ ] Stream Terrace (D)
[ ] Playa (E)
[ ] Outcrop (Q)
[ ] Extinct Lake (F)
[ ] Extant Lake (G)
[ ] Alluvial Plain (H)
[ ] Colluvium (I)
[ ] Moraine (J)
[ ] Flood Plain (K)
[ ] Marsh (L)
[ ] Landslide/Slump (M)
[ ] Delta (N)
[ ] Desert Pavement (P)
[ ] Stream Bed (R)
[ ] Aeolian (S)
[ ] None (T)
[ ] Residual (U)

Describe: The soil is a coarse sand. According to Blake (1991:332-333), this site appears to be located within the *Inmo-Inmo, Occasionally Flooded*, soil association. This soil type is located on alluvial fans at elevations of 4,100 to 5,200 ft. and is very gravelly loamy sand on 2-8 percent slopes.

Part A - Administrative Data

State No. 26Mn1670
Agency No.
Temp. No. KEC-590-31

***34. Vegetation**

***a. Life Zone** [ ] Arctic-Alpine (A) [ ] Hudsonian (B) [ ] Canadian (C) [ ] Transitional (D) [X] Upper Sonoran (E) [ ] Lower Sonoran (F)

***b. Community:** **Primary On-Site** (O) **Secondary On-Site** (O) **Surrounding Site** (O)

Aspen (A)	Other/Mixed Conifer (G)	Grassland/Steppe (M)	Marsh/Swamp (S)
Spruce-Fir (B)	Pinyon-Juniper Woodland (H)	Desert Lake Shore (N)	Lake/Reservoir (T)
Douglas Fir (C)	Wet Meadow (I)	Shadscale Community (O)	Agriculture (U)
Alpine Tundra (D)	Dry Meadow (J)	Tall Sagebrush (P)	Blackbrush (V)
Ponderosa Pine (E)	Oak-Maple Shrub (K)	Low Sagebrush (Q)	Creosote Bush (Y)
Lodgepole Pine (F)	Riparian (L)	Barren (R)	Juniper-Sage (2)

Describe: This site is located in a shadscale community.

***35. Miscellaneous Text:**

References:

Blake, E. W. 1991. *Soil Survey of Mineral County Area, Nevada.* USDA Soil Conservation Service, Washington, D.C.

Kolvet, R. C. and V. Ford. 2006. *The Civilian Conservation Corps in Nevada: From Boys to Men.* University of Nevada Press, Reno.

36. Comments/Continuations:

Part C - Historic Sites

State No. 26Mn1670
Agency No.
Temp. No. KEC-590-31

1. **Site Type:** Historic Airport

*2. **Historic Theme(s):** Transportation (RT); Military (MT)

	CULTURAL AFFILIATION	**DATING METHOD**
*3. **Culture:**	European-American (EA)	Historical Record (I); Informant (H)

Describe: The Hawthorne Municipal Airport was built as emergency landing strips by the Civilian Conservation Corps to service the Hawthorne Naval Ammunition Depot (Kolvet 2006:114).

*4. **Oldest Date:** c. 1930s **Recent Date:** present

How Determined? The CCC built the emergency air field in the 1930s, which was transferred to Mineral County in 1963. The airport is still in use.

5. **Site Dimensions:** 2,041 m (N/S) x 1,829 m (E/W) ***Area:** 3,732,989 sq. m

*6. **Surface Collection Method** [X] None (A) [ ] Grab Sample (B) [ ] Designed Sample (C) [ ] Complete Collection (D)

Sampling Method: None.

*7. **Estimated Depth of Cultural Fill** [X] Surface (A) [ ] 0 - 20 cm (B) [ ] 20 - 100 cm (C) [ ] 100 cm + (D) [ ] Fill noted but unknown (E) [ ] Depth Suspected, but not tested (F)

How Estimated: *(If tested, show location on site map)* No artifacts were noted in direct association with the airport.

*8. **Excavation Status** [ ] Excavated (A) [ ] Tested (B) [ ] Unexcavated (C)

Testing Method: N/A

*9. **Summary of Artifacts and Debris** *(Refer to Guide for additional categories)*

[ ] Glass (GL)
[ ] Metal (ME)
[ ] Nails (NC, NW)
[ ] Stove Parts (SP)
[ ] Insulators (IN)
[ ] Bone (BO)
[ ] Ceramics (CS)
[ ] Fabric (FA)
[ ] Mining/Milling Machinery(MN)
[ ] Building Hardware (BH)
[ ] Leather (LE)
[ ] Wire (WI)
[ ] Tin Cans
[ ] Mining Tools (MT)
[ ] Tar Paper (TP)
[ ] Ammunition (AM)
[ ] Wood (WD)
[ ] Rubber (RB)
[ ] Shoes (SO)
[ ] Tobacco Tins (TO)
[ ] Domestic Items (DI)
[ ] Kitchen Utensils (KU)
[ ] Car/Car Parts (CR)
[ ] Brick (BR)
[ ] Clock Parts (CT)

Describe: None observed.

10. **Ceramic Artifacts:**

#	PASTE	GLAZE/SLIP	DECORATION	PATTERN	VESSEL FORM(S)

a. Estimated Number of Ceramic Trademarks:

Describe: None observed.

11. **Glass:**

#	MANUFACTURE	COLOR	FUNCTION	TRADEMARKS	DECORATION

Describe: [*Note:* The term mold blown is used to indicate that the bottle glass was blown into a mold for shape by either mouth or machine. ABM refers to automatic bottle machine, which is used here to represent both ABM and Semi-ABM if there is no available information to indicate that the bottle was made by a semi-automatic bottle machine.]

12. **Maximum Density - #/sq. m (glass and ceramics):** /sq. m

Part C - Historic Sites

State No. 26Mn1670
Agency No.
Temp. No. KEC-590-31

13. Tin Cans: [*Note:* The measurements follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.]

#	TYPE	OPENING	SIZE	MODIFIED	LABEL/MARK	FUNCTION

Describe: None observed

***14. Landscape and Constructed Features (locate on site map) -** *(See Guide for additional categories)*

[ ] Trail/Road (TR)
[ ] Tailings (MT, ML)
[ ] Rock Alignment (RA)
[ ] Cairn (AI)
[ ] Dump (DU)
[ ] Depression (DE)
[ ] Cemetery/Burial (CB)
[ ] Prospect Hole (PH)
[ ] Dam, Earthen (DA)
[ ] Ditch (DI)
[ ] Inscriptions (IN)
[ ] Hearth/Campfire (HE)
[ ] Quarry (QU)
[X] Other (OT)

Describe: Two historic runways were noted, one trending north-south for 6,696 ft., with a width of 147 ft., and one trending east-west for 4,917 ft., with a width of 220 ft. Both runways are dirt, and are no longer in use. Both runways were built during the 1930sw by the CCC to provide an emergency landing field for the Hawthorne Naval Ammunition Depot (Kolvet and Ford 2006:114).

***15. Buildings and Structures (locate on site map):**

#	MATERIAL	TYPE
1	Combination of materials (W)	Building (S-3)

Describe: Only one building was recorded, identified as S-3 on the accompanying map and the accompanying Historic Resource Inventory form. Other buildings near S-3 are modern metal types situated along the edge of the asphalt covered parking area located to the south and southeast of the historic building. A fourth building, also modern, appears to be wood-framed and serves as the office, probably in association with the helicopter pad to the south of it, and located southeast of S-3. Fencing surrounds much of this portion of the airport.

S-3: This building is a single-story, wood-frame Vernacular Frame built on a simple rectangular plan as a duplex during the 1940s. According to Stephen Gustafson (Personal communication 2007), because it was "demountable," it likely was constructed in c. 1945. Apparently other buildings, possibly the semi-permanent housing, had no "floors" to provide for future moving from the concrete footing/foundation. The current foundation is concrete block. Walls are clad with T-1-11 boards, except for the gable peaks. These have horizontal composition wood product shaped like boards and attached to the gables similarly to the T-1-11 siding. The roof is a normal-pitched side-gable sheathed with composition shingles. Eaves are open and medium, with exposed fascia boards at the eaves. Visible under the shingles is the original board sheathing. There is no chimney, but there are two metal flues on the east pitch. There are three entries on the building, two doors on the east elevation represent the former entries to the individual units, and each has a side door (north and south) exiting the kitchen area. On the east elevation the roof cantilevers approximately 3 feet over the doors, which are centered. Below the doors is a concrete stoop with no steps. A similar concrete stoop, with no steps, is evident at each of the side exits.

Fenestration is symmetrical, consisting of all original, wood-framed windows surrounded by simple wood trim. Several have aluminum screens. On the east elevation, the primary entries each have a wood door. These have a multi-light (3 lights stacked) above a single panel. To the north and south of each door is a ribbon of three four-over-four double-hung sash windows with beveled stiles. Beyond the ribbons are single six-over-six double-hung sash windows. These are located in the kitchen area of the former duplex units. The northern window has two fans in two of the upper-most muntins to provide ventilation in the north unit kitchen. Metal vents are evident below the windows on each end, although the one on the south end is covered over with a shingle. The doors on the north and south elevations are wood. Both have a single light over a single panel, but the south door has a smaller panel below a larger light. The center of each elevation has a three-light awning for the two bathrooms. Above these, in the gable peaks, are metal louvered vents. On the west ends are a single six-over-six double-hung sash type window. Below these are vents; only the north is covered with a shingle. The south elevation has a door in the concrete block providing access to the crawl space. The west elevation mirrors the east elevation with two centered ribbons of three windows (four-over-four double-hung) and single end windows (six-over-six double-hung). Along the base of the building are four evenly spaced vents, three of which are covered with a composition shingle.

Though the building was not entered, looking through the windows indicates that the interior has been greatly altered. There were two floor plans. Plan A was a mirror style with each unit containing a living room, kitchen, bathroom and two bedrooms. There were three closets, as well (Residential Unit Plan c. 1941a). Plan B had the same number of rooms and closets, but one unit had one bedroom, and the other unit had three (Residential Unit Plan c. 1941b). With the removal of the central walls, leaving only one bedroom on each end, there were no visible indications (viewed through the windows) to determine which plan was used to construct this building.

Part C - Historic Sites

State No. 26Mn1670
Agency No. ______
Temp. No. KEC-590-31

Within the large 494.9-acre parcel, this building covers an area of about 56 feet by 30 feet. Though these duplexes are all described as being 27 feet by 55.33 feet, the measurements taken in the field are 27 feet 3 inches by 55 feet 9 inches.

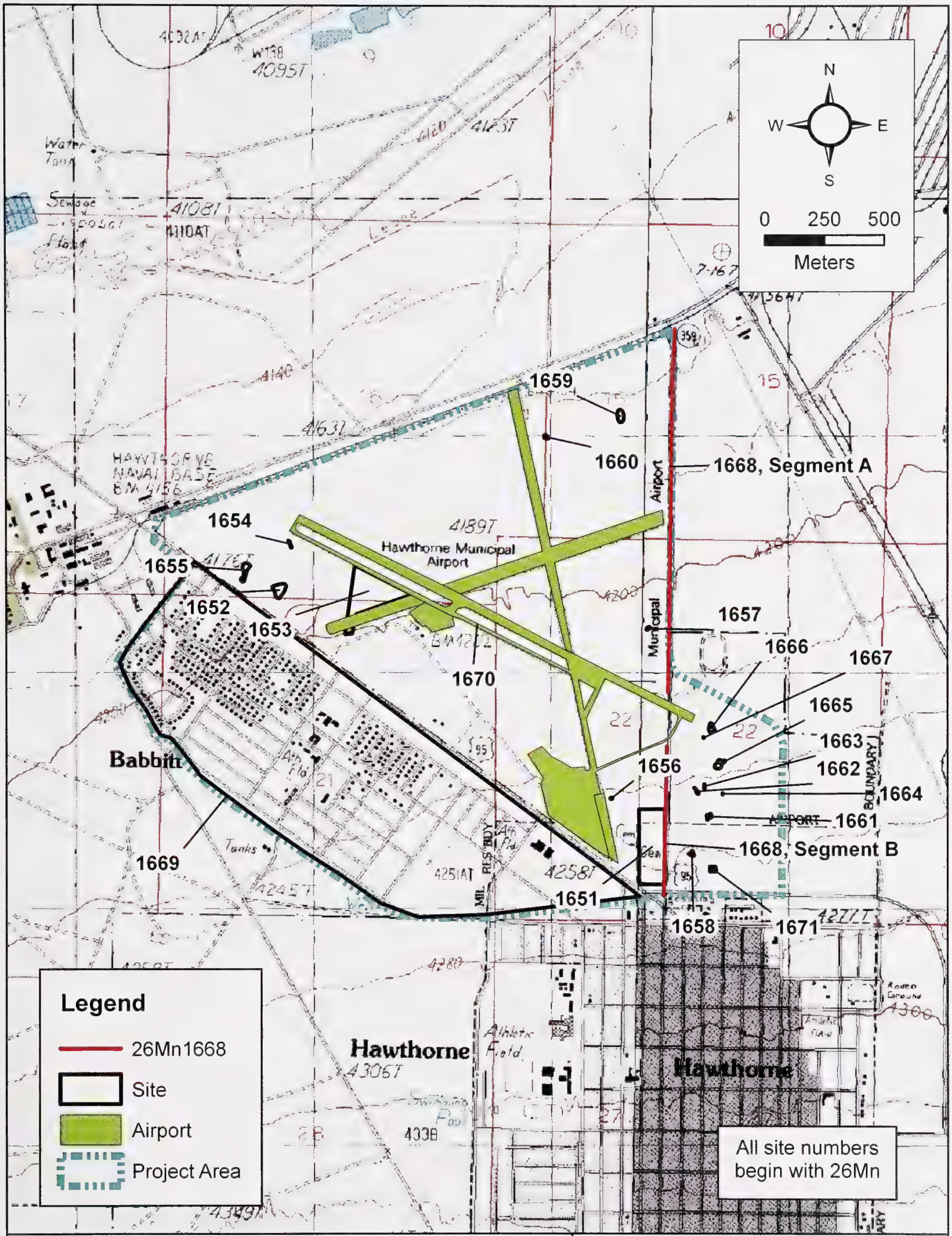
16. Comments/Continuations - *(Please make note of any Historic Record searches performed (for example - County Records, General Land Office, Historical Society, Land Management Agency Records, Oral Histories/Interviews)*

References:

Kolvet, R. C. and V. Ford. 2006. *The Civilian Conservation Corps in Nevada: From Boys to Men*. University of Nevada Press, Reno.

Residential Unit Plan. c. 1941a Babbitt 1 & 3 Bedroom Duplex. On file, Miscellaneous, Mineral County Museum, Hawthorne, Nevada.

c. 1941b Babbitt 2 Bedroom Duplex. On file, Miscellaneous, Mineral County Museum, Hawthorne, Nevada.



Site Location Map: Site No. 26Mn1670 (KEC-590-31)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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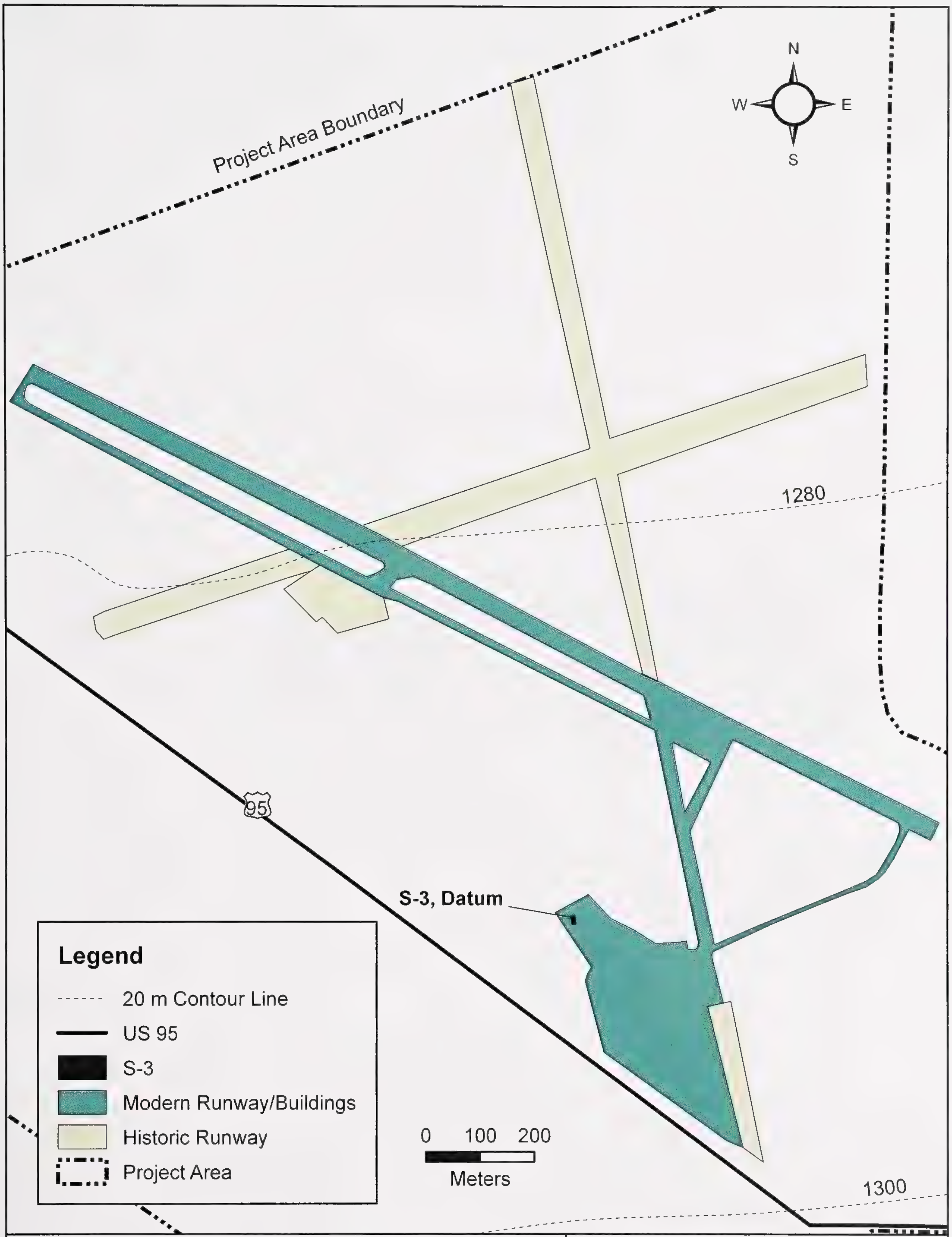

Site Sketch Map: Site No. 26Mn1670 (KEC-590-31)

Project: Hawthorne Survey (KEC-590)
Drawn by: PBR
Date: 07-19-07

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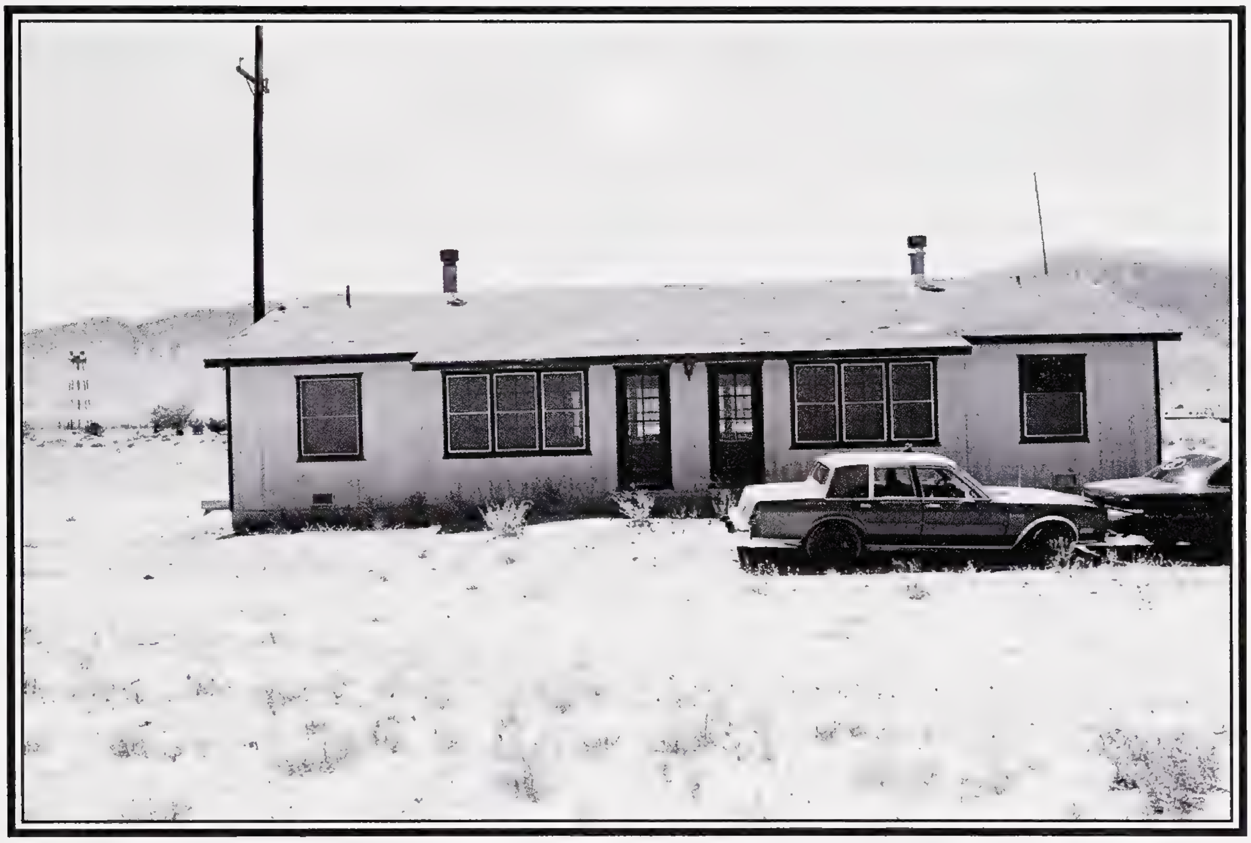

Photograph 1 (IMACS) Site 26Mn1670 (KEC-590-31). Civil Air Patrol Building, Babbitt Duplex (260°). Kautz Environmental Consultants, Inc., 2007.

IMACS SITE FORM
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

Form approved for use by
BLM - Utah, Idaho, Wyoming, Nevada
Division of State History - Utah, Wyoming
USFS - Intermountain Region
NPS - Utah, Wyoming

***1. State No.** 26Mn1671
***2. Agency No.**
3. Temp. No. KEC-590-32

Part A - Administrative Data

4. **State:** Nevada **County:** Mineral

5. **Project:** Hawthorne Survey (KEC-590)

*6. **Report No.:**

7. **Site Name / Property Name:** None

8. **Class:** [ ] Prehistoric [X] Historic [ ] Paleontologic [ ] Ethnographic

9. **Site Type:** Historic sewage treatment facility

*10. **Elevation:** 4,267 ft.

*11. **UTM Grid** (NAD 1983) **Zone** 11

Treatment facility	358605 **mE**	4266366 **mN** [Center]
Effluent line	358656 **mE**	4266329 **mN** [Southeast end]

*12. NW¼ of the SW¼ of the SE¼ of Section , T.8N., R.30E.

*13. **Meridian:** Mt. Diablo (7)

*14. **Map Reference:** *Hawthorne East, Nevada*, 7.5' Topographic Quadrangle, U.S.G.S. (P.E. 1987)

15. **Aerial Photo:** None

16. **Location and Access:** Head south on Highway 95 from Fallon, Nevada. Continue roughly 80 miles to Hawthorne, Nevada. As you enter Hawthorne, Nevada turn left (east) following Highway 95 Bypass (truck route). Follow the truck route approximately 0.18 mile. From here head due north 84 meters to the fenced area surrounding the facility.

*17. **Land Owner:** Private

*18. **Federal Administrative Units:** N/A

*19. **Location of Curated Materials:** N/A

20. **Site Description:** This site is an historic sewage treatment facility, located northeast of the U.S. Highway 95 Truck Route Bypass, and east of the Hawthorne Cemetery (26Mn1651). Because the facility is no longer in use, it has been fenced with 6-foot security fencing topped by approximately 2-foot high barbed wire fencing. Enclosed within the fencing are the contained concrete treatment plant, a concrete influent trough, a wooden pump valve house (Associated Building A), a concrete and wood valve pit structure (Associated Building B), two mostly buried concrete valve pit tubes, three concrete pipes, and a probable effluent discharge trough, including concrete pipe fragments. No artifacts were observed in association. The surrounding area is currently undeveloped.

*21. **Site Condition:** [ ] Excellent (A) [ ] Good (B) [X] Fair (C) [ ] Poor (D) [ ] Inundated (E) [ ] Destroyed (F)

*22. **Impact Agent(s):** Erosion (ER), Structural Decay (SD), Demolition/Dismantling (DM)

*23. **National Register Status:** [ ] Significant (C) [X] Non-Significant (D) [ ] Unevaluated (Z)

List of Attachments:
[ ] Part B
[X] Part C
[ ] Part E
[X] Topo Map
[X] Site Sketch
[X] Photos
[ ] Artifact/Feature Sketch
[ ] Continuation Sheets
[X] Other: HRI Inventory form

*Encoded Data Items

BLM 8100-1
FS R-4 2300-2
3/90

Part A - Administrative Data

State No. 26Mn1671
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Justify: Themes relevant to the evaluation of this site include *Architecture,* and *Land Usage (Townsite Development and City Planning).* The geographic limit is at the local level – the community of Hawthorne and the current project area. The associated chronological period is the World War II era, the early 1940s. Alterations made to the sewage treatment facility are limited to the addition of wooden structures which provide shelter for the pump valves and the valve pit. These appear to have been added during the same period. The site's Integrity of location remains unchanged, though its setting and feeling have been affected by development along the U.S. 95 Bypass, known as the Truck Route, that lies south of the facility. Currently, the facility is no longer in use. As a safety precaution, it is enclosed by a high wire and barbed wire fence.

With regard to the site's significance, the facility has no known association with significant events in the City of Hawthorne (Criterion a), or significant associations with the lives of persons of importance to the community, state or nation (Criterion b). In general, it is a very simple, mundane, non-distinctive example of World War II Era to mid 20th century institutional architecture. The method of construction is ordinary, and does not possess high artistic value (Criterion c). The building is unlikely to yield additional research opportunities for furthering an understanding of historical developments or neighborhood architecture on a local, regional or national level (Criterion d). Consequently, it is the opinion of the evaluator that this sewage treatment facility is not-significant, and not eligible for nomination to the National Register of Historic Places (NRHP).

24. Photos: KEC-590 Roll 7, IMGP-4491, -4493, -4494

25. Recorded by: D. Risse, M. E. Kimball

***26. Survey Organization:** Kautz Environmental Consultants, Inc., Reno, Nevada (KF)

27. Assisting Crew Members: B. Rodela, D. J. McCarty ***28. Survey Date:** June 19 and 29, 2007

***29. Slope:** 0-1 (Degrees) **Aspect:** Facility 0°/360°; Possible effluent line generally 128°-130°

***30. Distance to Permanent Water:** 89.30 x 100 Meters

*Type of Water Source [ ] Spring/Seep (A) [ ] Stream/River (B) [X] Lake (C) [ ] Other (D)
Name of Water Source: Walker Lake, to the northwest

***31. Geographic Unit:** Walker River Basin - Walker Lake Valley: Whiskey Flat (Hawthorne Subarea) (BOG)

32. Topographic Location - *See Guide for additional information

PRIMARY LANDFORM

[ ] Mountain spine (A)
[ ] Hill (B)
[ ] Tableland/Mesa (C)
[ ] Ridge (D)
[X] Valley (E)
[ ] Plain (F)
[ ] Canyon (G)
[ ] Island (H)

[ ] Alluvial fan (A)
[ ] Alcove/Rock Shelter (B)
[ ] Arroyo (C)
[ ] Basin (D)
[ ] Cave (E)
[ ] Cliff (F)
[ ] Delta (G)
[ ] Detached Monolith (H)

SECONDARY LANDFORM

[ ] Dune (I)
[X] Floodplain (J)
[ ] Ledge (K)
[ ] Mesa/Butte (L)
[ ] Playa (M)
[ ] Port. Geo. Feature (N)
[ ] Plain (O)
[ ] Ridge/Knoll (P)

[ ] Slope (Q)
[ ] Terrace/Bench (R)
[ ] Talus Slope (S)
[ ] Island (T)
[ ] Outcrop (U)
[ ] Spring Mound/Bog (V)
[ ] Valley (W)
[ ] Cutbank (X)

[ ] Riser (Y)
[ ] Multiple S. Landforms (1)
[ ] Bar (2)
[ ] Lagoon (3)
[ ] Ephemeral Wash (4)
[ ] Kipuka (5)
[ ] Saddle/Pass (6)
[ ] Graben (7)

Describe: The site is located on the flat valley floor, to the immediate north of Hawthorne and southwest of Walker Lake.

***33. On-site Depositional Context**

[ ] Fan (A)
[ ] Talus (B)
[ ] Dune (C)
[ ] Stream Terrace (D)
[ ] Playa (E)

[ ] Outcrop (Q)
[ ] Extinct Lake (F)
[ ] Extant Lake (G)
[ ] Alluvial Plain (H)
[ ] Colluvium (I)

[ ] Moraine (J)
[X] Flood Plain (K)
[ ] Marsh (L)
[ ] Landslide/Slump (M)
[ ] Delta (N)

[ ] Desert Pavement (P)
[ ] Stream Bed (R)
[ ] Aeolian (S)
[ ] None (T)
[ ] Residual (U)

Describe: The soil is a coarse sand. According to Blake (1991:332-333), this site appears to be located within the *Inmo-Inmo, Occasionally Flooded* soil association. This soil type is located on alluvial fans at elevations of 4,100 to 5,200 ft. and is very gravelly loamy sand on 2-8 percent slopes.

***34. Vegetation**

***a. Life Zone** [ ] Arctic-Alpine (A) [ ] Hudsonian (B) [ ] Canadian (C) [ ] Transitional (D) [X] Upper Sonoran (E) [ ] Lower Sonoran (F)

Part A - Administrative Data

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***b. Community:** **Primary On-Site** ( ) **Secondary On-Site** ( ) **Surrounding Site** ( )

Aspen (A)
Spruce-Fir (B)
Douglas Fir (C)
Alpine Tundra (D)
Ponderosa Pine (E)
Lodgepole Pine (F)
Other/Mixed Conifer (G)
Pinyon-Juniper Woodland (H)
Wet Meadow (I)
Dry Meadow (J)
Oak-Maple Shrub (K)
Riparian (L)
Grassland/Steppe (M)
Desert Lake Shore (N)
Shadscale Community (O)
Tall Sagebrush (P)
Low Sagebrush (Q)
Barren (R)
Marsh/Swamp (S)
Lake/Reservoir (T)
Agriculture (U)
Blackbrush (V)
Creosote Bush (Y)
Juniper-Sage (2)

Describe: Vegetation is sparse, and is composed of elements of the shadscale community.

***35. Miscellaneous Text:**

References:

Blake, E. W. 1991. *Soil Survey of Mineral County Area, Nevada.* USDA Soil Conservation Service, Washington, D.C.

36. Comments/Continuations: None.

Part C - Historic Sites

State No. 26Mn1671
Agency No.
Temp. No. KEC-590-32

1. **Site Type:** Historic sewage treatment plant

*2. **Historic Theme(s):** Community Development (CD)

	CULTURAL AFFILIATION	**DATING METHOD**
*3. **Culture:**	European-American (EA)	Informant (H)

Describe: According to Stephen Gustafson, of the Hawthorne Utilities, this facility was constructed in the 1940s.

*4. **Oldest Date:** 1940s **Recent Date:** 1970s

How Determined? Information provided by Stephen Gustafson (Personal communication 2007).

5. **Site Dimensions:**

Facility: 21 m (N/S) x 25 m (E/W)	***Area:**	525 sq. m
Pos. Effluent Distribution Line: 49 m (NW/SE) x ~1 m (NE/SW)		49 sq. m

*6. **Surface Collection Method**
[X] None (A)
[ ] Grab Sample (B)
[ ] Designed Sample (C)
[ ] Complete Collection (D)

Sampling Method: None.

*7. **Estimated Depth of Cultural Fill**
[ ] Surface (A)
[ ] 0 - 20 cm (B)
[ ] 20 - 100 cm (C)
[ ] 100 cm + (D)
[ ] Fill noted but unknown (E)
[X] Depth Suspected, but not tested (F)

How Estimated: *(If tested, show location on site map)* The facility is partially underground, and subsurface pipe fragments may still remain in the possible effluent line.

*8. **Excavation Status** [ ] Excavated (A) [ ] Tested (B) [ ] Unexcavated (C)

Testing Method: N/A

*9. **Summary of Artifacts and Debris** *(Refer to Guide for additional categories)*

[ ] Glass (GL)
[ ] Metal (ME)
[ ] Nails (NC, NW)
[ ] Stove Parts (SP)
[ ] Insulators (IN)
[ ] Bone (BO)
[ ] Ceramics (CS)
[ ] Fabric (FA)
[ ] Mining/Milling Machinery(MN)
[ ] Building Hardware (BH)
[ ] Leather (LE)
[ ] Wire (WI)
[ ] Tin Cans
[ ] Mining Tools (MT)
[ ] Tar Paper (TP)
[ ] Ammunition (AM)
[ ] Wood (WD)
[ ] Rubber (RB)
[ ] Shoes (SO)
[ ] Tobacco Tins (TO)
[ ] Domestic Items (DI)
[ ] Kitchen Utensils (KU)
[ ] Car/Car Parts (CR)
[ ] Brick (BR)
[ ] Clock Parts (CT)

Describe: The only items that could be termed artifacts present at this site are the three concrete pipes, mostly intact and fragments within the fenced area, as well as numerous concrete pipe fragments observed along the length of the probable effluent distribution line to the southeast. These pipes appear to be between 8 and 10 inches in diameter.

10. **Ceramic Artifacts:**

#	PASTE	GLAZE/SLIP	DECORATION	PATTERN	VESSEL FORM(S)

a. **Estimated Number of Ceramic Trademarks:** None.

Describe: None observed.

11. **Glass:**

#	MANUFACTURE	COLOR	FUNCTION	TRADEMARKS	DECORATION

Describe: None observed

12. **Maximum Density - #/sq. m (glass and ceramics):** N/A

Part C - Historic Sites

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13. **Tin Cans:** [*Note:* The measurements follow those provided by can manufacturers, who measure cans by 16ths of an inch. For example, 206 x 305 x 104 = 2 6/16 in. x 3 5/16 in. x 1 4/16 in. The diameter (d), or width (w), is always given first, followed by the height (h), then the depth (de), if it is other than cylindrical.]

#	TYPE	OPENING	SIZE	MODIFIED	LABEL/MARK	FUNCTION

Describe: None observed.

*14. **Landscape and Constructed Features (locate on site map) -** *(See Guide for additional categories)*

☐ Trail/Road (TR)
☐ Tailings (MT, ML)
☐ Rock Alignment (RA)
☐ Cairn (AI)
☐ Dump (DU)
☐ Depression (DE)
☐ Cemetery/Burial (CB)
☐ Prospect Hole (PH)
☐ Dam, Earthen (DA)
☐ Ditch (DI)
☐ Inscriptions (IN)
☐ Hearth/Campfire (HE)
☐ Quarry (QU)
☒ Other (OT)

Describe: Extending to the north and northeast of the sewage treatment facility are remnants of concrete pipes and disturbed areas suggesting the removal of underground pipes. This appears to be part of a line that distributed effluent to the drying beds from the valve pit (Associated Building B). This line is 157 feet (48 m) long.

*15. **Buildings and Structures (locate on site map):**

#	MATERIAL	TYPE
2	Combination of materials	Structures
1	Wood	Building

Describe: This site contains three structures, the primary sewage treatment plant (S-4), the associated building covering the pump valves (Associated Building A), and the valve pit structure (Associated Building B).

S-4: The primary structure, built in the 1940s (Stephen Gustafson, personal communication 2007) is constructed of poured concrete with an underground portion housing a series of tanks for sewage treatment. It measures approximately 36 square feet. At the north end is Associated Building B, a valve pit, and a concrete entry tube for the valve pit. Along a small portion of the north, all of the east and most of the south elevations is an open conduit. Pipe rails are attached to the structure at the north end, and along the wall from there to the northeast corner, and along most of the east length. Near the south end of the east wall is a slight extension with the gear drive unit attached to the wall. The motor for the unit has been removed. South of this, near the wall, is a concrete tube to a valve pit. It is open, and is approximately 12 inches in diameter. At the southeast is the intake trough, which has a grill. On the structure at the southeast corner is a metal plate that probably provides access to the tanks. A large metal lid is located on the top of the structure. The system was devised to deliver the influent through the southeast trough into the series of tanks, which separated solid material from the liquid, did a form of dousing in the upper tanks, possibly adding chlorine at that time, and then sending the resultant effluent to the valve pit for distribution to the drying beds to the north or northeast. It is unknown what the vent-like part of the south elevation is, though it may be providing ventilation for the pumps. Associated Building A was added to provide shelter for the pump valves, although there is one valve situated just to the east. This part of the treatment process apparently is a closed system, with access necessary only for maintenance through the metal lids.

There are three nearly intact and pieces of concrete pipes lying on the ground north of Structure 4, and west of Associated Building B. The facility has been closed since the 1970s, and has been fenced for safety reasons. Fencing consists of metal posts with a "Y" at the top, 6-foot high metal wire, and strands of barbed wire attached to the "Y's."

Building A: It is a wood-framed single-story building in a simple square plan, located atop a ledge of the east portion of the sewage tank facility. Its walls are clad with horizontal lapped or beveled siding. Corner boards are evident. The building has a low-pitched hipped, pyramidal roof with exposed wood slats; sheathing is gone. Eaves are not present due to a loss of the roof covering, but would have been narrow to moderate based on the length of the rafter tails. The two openings have simple wood trim with butt joints. Neither the door on the south elevation, nor the window on the east elevation remain. Based on framing in the window surround, the type was a tall rectangular, probably a double-hung sash, with a wood sill. A goose-neck exterior light is over the window. The purpose of this building, added in the c. 1960s was housing for the pump valves (Stephen Gustafson, personal communication 2007).

Building B: This structure has a concrete foundation and lower walls, with a wood-framed upper portion. The framing (wood studs) is evident on the north elevation where the wall cladding is incomplete. Cladding is generally horizontally-placed wood board. The roof is a moderately sloped shed type (to the east), with wood board slats. The eaves are narrow to moderate, with exposed rafters and tails. The entry is through an opening with a wood surround on the west elevation. The door is no longer present. The lower walls and foundation are made of poured concrete. This was a valve pit used for distribution of the effluent to the drying beds located to the north and/or northeast.

Part C - Historic Sites

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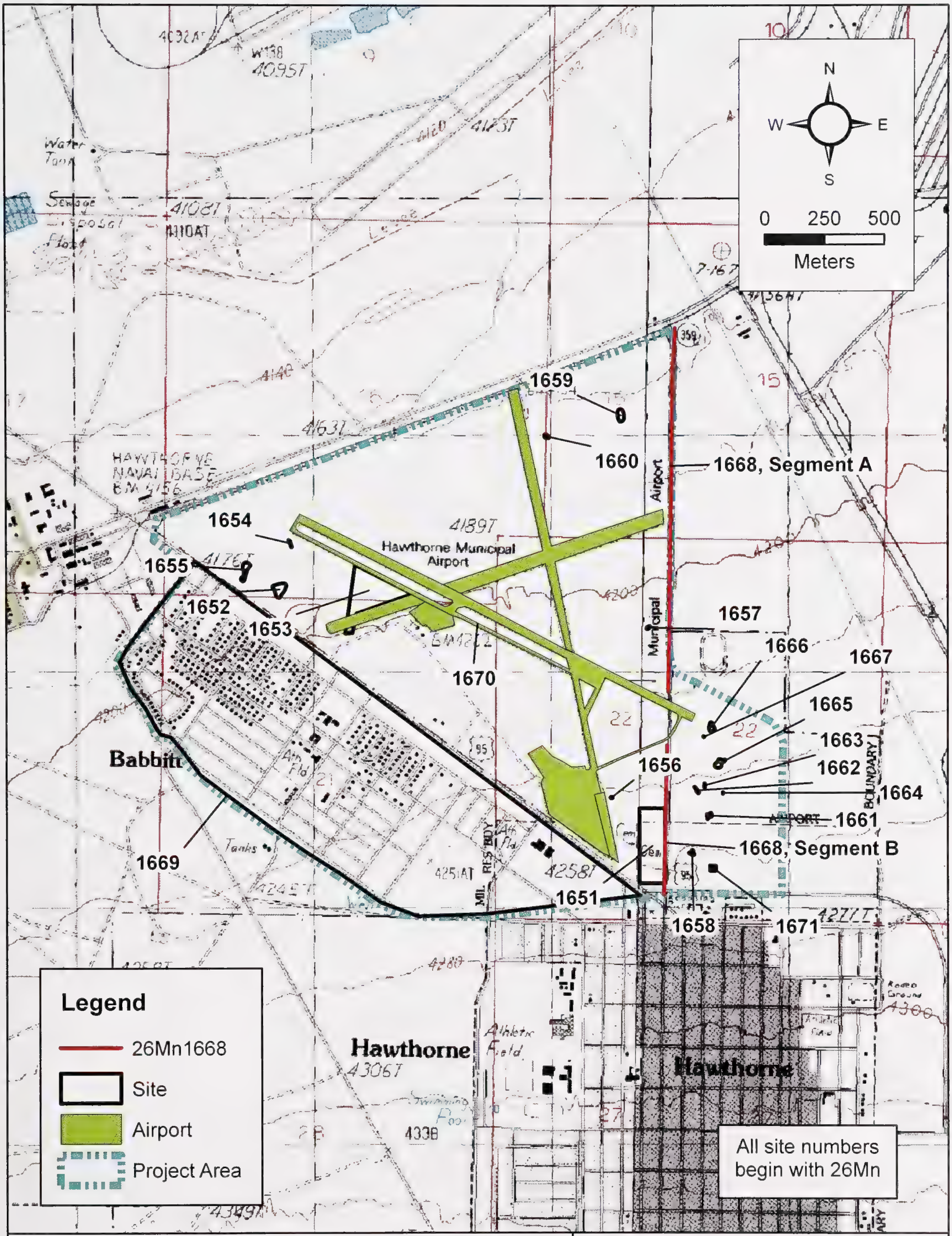
16. **Comments/Continuations -** *(Please make note of any Historic Record searches performed (for example - County Records, General Land Office, Historical Society, Land Management Agency Records, Oral Histories/Interviews)* None



Site Location Map: Site No. 26Mn1671 (KEC-590-32)

Base Maps: *Hawthorne East, Nevada* and *Hawthorne West, Nevada*, 7.5' Topographic Quadrangles, U.S.G.S., P.E. 1987. T.8N., R.30E.

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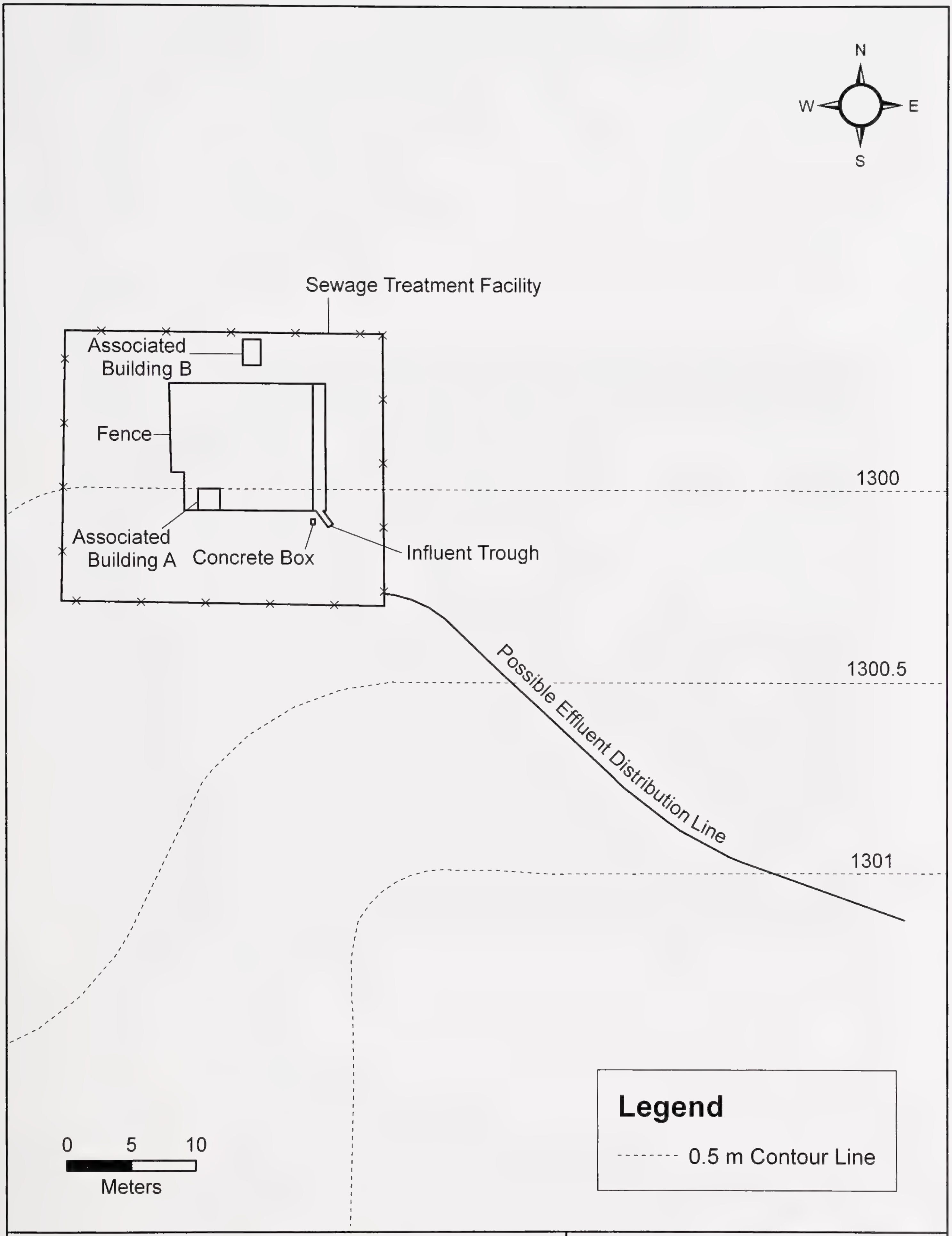

Site Sketch Map: Site No. 26Mn1671 (KEC-590-32)

Project: Hawthorne Survey (KEC-590)
Drawn by: JM
Date: 07-17-07

kautz
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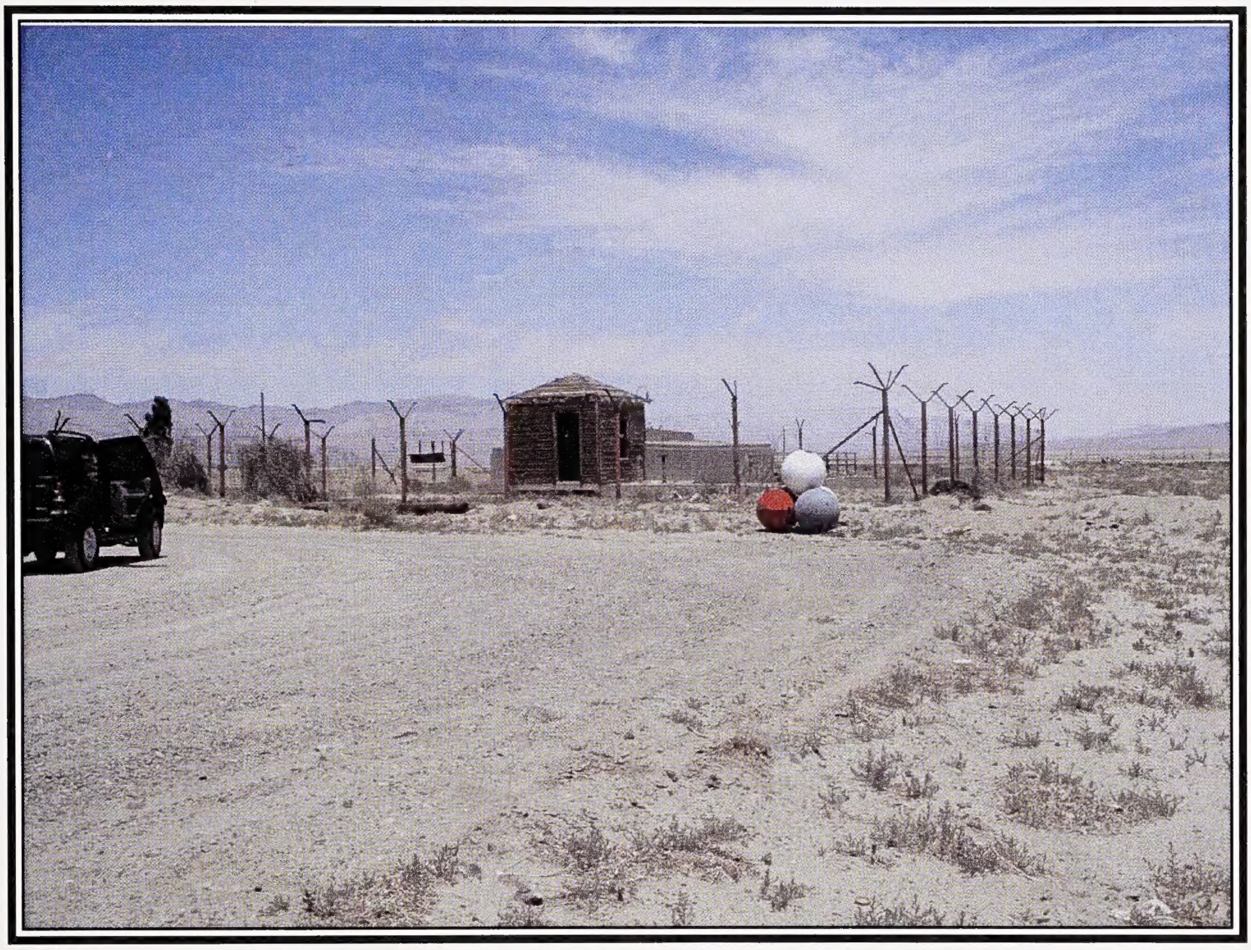

Photograph 1 (IMACS) Site 26Mn1671 (KEC-590-32). Sewage Treatment Facility, Wood building (340°). Kautz Environmental Consultants, Inc., 2007.